ภาคผนวก ฐ

ผลการตรวจวัดคุณภาพสิ่งแวดล้อม

ภาคผนวก ฐ-1

คุณภาพอากาศในบรยากาศ

Analysis / Test Report

LABORATORY ACCREDITATION
BLA-DSS

TESTING
No.0042

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 23128851
Date Received : Dec 01, 2023
Date Reported : Dec 08, 2023
Report Number: 2825377-1

Sample Description	Air Quality
Location	บ้านหัวทุ่ง (A1) (GPS 47P 0751521, 1422060)
Date Analysis Commenced	Dec 02, 2023
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one quartz filter paper (8x10 inch) placed in plastic bag

Sample Number	Sampled Date	Total Suspended Particulate (mg/m3)	Particulate Matter (PM-10) (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
23128851-1	Nov 23 - Nov 24, 2023	0.040	0.023	757	31
23128851-2	Nov 24 - Nov 25, 2023	0.041	0.022	757	31
23128851-3	Nov 25 - Nov 26, 2023	0.050	0.027	757	30
23128851-4	Nov 26 - Nov 27, 2023	0.035	0.018	757	30
23128851-5	Nov 27 - Nov 28, 2023	0.031	0.020	757	29
23128851-6	Nov 28 - Nov 29, 2023	0.049	0.039	757	30
23128851-7	Nov 29 - Nov 30, 2023	0.053	0.036	757	31
Guideline		0.33	0.12	-	-

Reference Method

Total Suspended Particulate : US EPA 40 CFR Part 50 Appendix B

Particulate Metter (PM-10) : US EPA 40 CFR Part 50 Appendix J

Guideline : Notification of the National Environmental Board. No.24, 2004 (B.E.2547) dated September 22, 2004

Sampled By : Mongkon Phalathip

Remark :

- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Approved by

Thanita Kulsuriwong
Scientist (4)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

Analysis / Test Report

LABORATORY ACCREDITATION
BLA-DSS

TESTING
No.0042

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 23128851
Date Received : Dec 01, 2023
Date Reported : Dec 08, 2023
Report Number: 2825377-2

Sample Description	Air Quality
Location	วัดหินโค่ง (A2) (GPS 47P 0755459, 1424183)
Date Analysis Commenced	Dec 02, 2023
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one quartz filter paper (8x10 inch) placed in plastic bag

Sample Number	Sampled Date	Total Suspended Particulate (mg/m3)	Particulate Matter (PM-10) (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
23128851-8	Nov 23 - Nov 24, 2023	0.128	0.058	757	31
23128851-9	Nov 24 - Nov 25, 2023	0.122	0.073	757	31
23128851-10	Nov 25 - Nov 26, 2023	0.095	0.050	757	30
23128851-11	Nov 26 - Nov 27, 2023	0.060	0.041	757	30
23128851-12	Nov 27 - Nov 28, 2023	0.047	0.026	757	29
23128851-13	Nov 28 - Nov 29, 2023	0.071	0.049	757	30
23128851-14	Nov 29 - Nov 30, 2023	0.102	0.066	757	31
Guideline		0.33	0.12	-	-

Reference Method

Total Suspended Particulate : US EPA 40 CFR Part 50 Appendix B

Particulate Metter (PM-10) : US EPA 40 CFR Part 50 Appendix J

Guideline : Notification of the National Environmental Board. No.24, 2004 (B.E.2547) dated September 22, 2004

Sampled By : Mongkon Phalathip

Remark :

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Analysis / Test Report

LABORATORY ACCREDITATION
BLA-DSS

TESTING
No.0042

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 23128851
Date Received : Dec 01, 2023
Date Reported : Dec 08, 2023
Report Number: 2825377-3

Sample Description	Air Quality
Location	บ้านซากหิน (A3) (GPS 47P 0751712, 1426384)
Date Analysis Commenced	Dec 02, 2023
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one quartz filter paper (8x10 inch) placed in plastic bag

Sample Number	Sampled Date	Total Suspended Particulate (mg/m3)	Particulate Matter (PM-10) (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
23128851-15	Nov 23 - Nov 24, 2023	0.034	0.014	757	31
23128851-16	Nov 24 - Nov 25, 2023	0.047	0.018	757	31
23128851-17	Nov 25 - Nov 26, 2023	0.045	0.022	757	30
23128851-18	Nov 26 - Nov 27, 2023	0.033	0.013	757	30
23128851-19	Nov 27 - Nov 28, 2023	0.037	0.017	757	29
23128851-20	Nov 28 - Nov 29, 2023	0.040	0.026	757	30
23128851-21	Nov 29 - Nov 30, 2023	0.045	0.028	757	31
Guideline		0.33	0.12	-	-

Reference Method

Total Suspended Particulate : US EPA 40 CFR Part 50 Appendix B

Particulate Metter (PM-10) : US EPA 40 CFR Part 50 Appendix J

Guideline : Notification of the National Environmental Board. No.24, 2004 (B.E.2547) dated September 22, 2004

Sampled By : Mongkon Phalathip

Remark :

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Analysis / Test Report

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TESTING
No.0042

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 23128851
Date Received : Dec 01, 2023
Date Reported : Dec 08, 2023
Report Number: 2825377-4

Sample Description	Air Quality
Location	วัดหนองกรับ (A4) (GSP 47P 0751171, 1425552)
Date Analysis Commenced	Dec 02, 2023
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one quartz filter paper (8x10 inch) placed in plastic bag

Sample Number	Sampled Date	Total Suspended Particulate (mg/m3)	Particulate Matter (PM-10) (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
23128851-22	Nov 23 - Nov 24, 2023	0.054	0.027	757	31
23128851-23	Nov 24 - Nov 25, 2023	0.046	0.025	757	31
23128851-24	Nov 25 - Nov 26, 2023	0.075	0.042	757	30
23128851-25	Nov 26 - Nov 27, 2023	0.043	0.024	757	30
23128851-26	Nov 27 - Nov 28, 2023	0.041	0.026	757	29
23128851-27	Nov 28 - Nov 29, 2023	0.056	0.039	757	30
23128851-28	Nov 29 - Nov 30, 2023	0.084	0.054	757	31
Guideline		0.33	0.12	-	-

Reference Method

Total Suspended Particulate : US EPA 40 CFR Part 50 Appendix B

Particulate Metter (PM-10) : US EPA 40 CFR Part 50 Appendix J

Guideline : Notification of the National Environmental Board. No.24, 2004 (B.E.2547) dated September 22, 2004

Sampled By : Mongkon Phalathip

Remark :

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Analysis / Test Report

LABORATORY ACCREDITATION
BLA-DSS
TESTING
No.0042

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 23128851
Date Received : Dec 01, 2023
Date Reported : Dec 08, 2023
Report Number: 2825377-5

Sample Description	Air Quality
Location	บ้านมาบป่าหวาย (A5) (GPS 47P 0753753, 1429586)
Date Analysis Commenced	Dec 02, 2023
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one quartz filter paper (8x10 inch) placed in plastic bag

Sample Number	Sampled Date	Total Suspended Particulate (mg/m3)	Particulate Matter (PM-10) (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
23128851-29	Nov 23 - Nov 24, 2023	0.066	0.033	757	31
23128851-30	Nov 24 - Nov 25, 2023	0.061	0.027	757	31
23128851-31	Nov 25 - Nov 26, 2023	0.070	0.031	757	30
23128851-32	Nov 26 - Nov 27, 2023	0.117	0.046	757	30
23128851-33	Nov 27 - Nov 28, 2023	0.046	0.024	757	29
23128851-34	Nov 28 - Nov 29, 2023	0.051	0.029	757	30
23128851-35	Nov 29 - Nov 30, 2023	0.055	0.036	757	31
Guideline		0.33	0.12	-	-

Reference Method

Total Suspended Particulate : US EPA 40 CFR Part 50 Appendix B

Particulate Metter (PM-10) : US EPA 40 CFR Part 50 Appendix J

Guideline : Notification of the National Environmental Board. No.24, 2004 (B.E.2547) dated September 22, 2004
Sampled By : Mongkon Phalathip

Remark :

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Approved by

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 23128811
Date Received : Dec 01, 2023
Date Reported : Dec 08, 2023
Report Number: 2825335-1

Sample Description Air Quality
Location บ้านหัวทุ่ง (A1) (GPS 47P 0751521, 1422060)
Parameter Nitrogen dioxide (ppm)
Measurement Date Nov 23, 2023 - Nov 30, 2023
Measurement by Mongkon Phalathip

Time	23128811-1 Nov 23, 2023	23128811-2 Nov 24, 2023	23128811-3 Nov 25, 2023	23128811-4 Nov 26, 2023	23128811-5 Nov 27, 2023	23128811-6 Nov 28, 2023	23128811-7 Nov 29, 2023
12:00 PM - 01:00 PM	0.003	0.003	0.003	0.003	0.003	0.003	0.003
01:00 PM - 02:00 PM	0.003	0.003	0.003	0.003	0.003	0.003	0.003
02:00 PM - 03:00 PM	0.004	0.003	0.003	0.003	0.003	0.004	0.003
03:00 PM - 04:00 PM	0.004	0.004	0.003	0.003	0.003	0.005	0.003
04:00 PM - 05:00 PM	0.003	0.003	0.004	0.004	0.003	0.004	0.003
05:00 PM - 06:00 PM	0.003	0.004	0.003	0.003	0.003	0.013	0.003
06:00 PM - 07:00 PM	0.004	0.005	0.019	0.004	0.003	0.004	0.004
07:00 PM - 08:00 PM	0.003	0.004	0.016	0.004	0.004	0.003	0.003
08:00 PM - 09:00 PM	0.003	0.004	0.003	0.004	0.003	0.003	0.003
09:00 PM - 10:00 PM	0.004	0.004	0.003	0.004	0.003	0.003	0.003
10:00 PM - 11:00 PM	0.004	0.004	0.003	0.003	0.004	0.003	0.003
11:00 PM - 12:00 AM	0.004	0.004	0.003	0.004	0.004	0.006	0.003
12:00 AM - 01:00 AM	0.004	0.004	0.004	0.005	0.004	0.023	0.003
01:00 AM - 02:00 AM	0.004	0.004	0.005	0.004	0.004	0.007	0.003
02:00 AM - 03:00 AM	0.005	0.004	0.005	0.004	0.004	0.017	0.003
03:00 AM - 04:00 AM	0.005	0.006	0.005	0.004	0.004	0.006	0.005
04:00 AM - 05:00 AM	0.005	0.006	0.005	0.004	0.004	0.024	0.006
05:00 AM - 06:00 AM	0.006	0.007	0.004	0.006	0.006	0.004	0.004
06:00 AM - 07:00 AM	0.025	0.006	0.003	0.004	0.006	0.003	0.004
07:00 AM - 08:00 AM	0.006	0.005	0.003	0.003	0.004	0.003	0.004
08:00 AM - 09:00 AM	0.004	0.005	0.003	0.003	0.003	0.003	0.003
09:00 AM - 10:00 AM	0.003	0.004	0.003	0.003	0.004	0.003	0.003
10:00 AM - 11:00 AM	0.003	0.003	0.003	0.003	0.004	0.003	0.003
11:00 AM - 12:00 PM	0.004	0.006	0.003	0.003	0.003	0.004	0.003
Average	0.005	0.004	0.005	0.004	0.004	0.006	0.003
1hr - Maximum	0.025	0.007	0.019	0.006	0.006	0.024	0.006
Standard 1hr - Average	0.170	0.170	0.170	0.170	0.170	0.170	0.170

Standard : Notification of the National Environment Board No. 33, 2009 (B.E. 2552).
Reference Method : US EPAMethod Part 50 App. F (Chemiluminescence)

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Approved by

Orawan Rakyong
Scientist (3)

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 23128811
Date Received : Dec 01, 2023
Date Reported : Dec 08, 2023
Report Number: 2859234-1

Sample Description Air Quality
Location วัดหินโค่ง (A2) (GPS 47P 0755459, 1424183)
Parameter Nitrogen dioxide (ppm)
Measurement Date Nov 23, 2023 - Nov 30, 2023
Measurement by Mongkon Phalathip

Time	23128811-8 Nov 23, 2023	23128811-9 Nov 24, 2023	23128811-10 Nov 25, 2023	23128811-11 Nov 26, 2023	23128811-12 Nov 27, 2023	23128811-13 Nov 28, 2023	23128811-14 Nov 29, 2023
11:00 AM - 12:00 PM	0.002	0.002	0.005	0.004	0.002	0.004	0.008
12:00 PM - 01:00 PM	0.004	0.003	0.007	0.003	0.003	0.004	0.009
01:00 PM - 02:00 PM	0.004	0.002	0.006	0.002	0.002	0.002	0.004
02:00 PM - 03:00 PM	0.004	0.002	0.004	0.002	0.004	0.003	0.007
03:00 PM - 04:00 PM	0.008	0.002	0.004	0.003	0.002	0.003	0.007
04:00 PM - 05:00 PM	0.003	0.003	0.003	0.003	0.002	0.002	0.003
05:00 PM - 06:00 PM	0.002	0.003	0.004	0.004	0.003	0.002	0.002
06:00 PM - 07:00 PM	0.002	0.003	0.004	0.004	0.004	0.002	0.003
07:00 PM - 08:00 PM	0.002	0.003	0.004	0.004	0.005	0.005	0.002
08:00 PM - 09:00 PM	0.002	0.002	0.004	0.004	0.003	0.003	0.002
09:00 PM - 10:00 PM	0.002	0.002	0.006	0.004	0.004	0.003	0.002
10:00 PM - 11:00 PM	0.002	0.002	0.007	0.003	0.004	0.003	0.002
11:00 PM - 12:00 AM	0.002	0.003	0.005	0.005	0.003	0.002	0.002
12:00 AM - 01:00 AM	0.002	0.002	0.004	0.009	0.002	0.005	0.002
01:00 AM - 02:00 AM	0.004	0.008	0.002	0.007	0.003	0.006	0.008
02:00 AM - 03:00 AM	0.007	0.008	0.003	0.005	0.005	0.006	0.008
03:00 AM - 04:00 AM	0.005	0.007	0.003	0.004	0.005	0.005	0.004
04:00 AM - 05:00 AM	0.003	0.003	0.003	0.006	0.005	0.005	0.004
05:00 AM - 06:00 AM	0.002	0.003	0.004	0.003	0.003	0.005	0.005
06:00 AM - 07:00 AM	0.002	0.003	0.002	0.003	0.004	0.002	0.009
07:00 AM - 08:00 AM	0.002	0.002	0.002	0.003	0.004	0.002	0.006
08:00 AM - 09:00 AM	0.002	0.003	0.002	0.002	0.004	0.002	0.004
09:00 AM - 10:00 AM	0.002	0.002	0.004	0.002	0.002	0.001	0.003
10:00 AM - 11:00 AM	0.002	0.002	0.002	0.003	0.004	0.001	0.004
Average	0.003	0.003	0.004	0.004	0.003	0.003	0.005
1hr - Maximum	0.008	0.008	0.007	0.009	0.005	0.006	0.009
Standard 1hr - Average	0.170	0.170	0.170	0.170	0.170	0.170	0.170

Standard : Notification of the National Environment Board No. 33, 2009 (B.E. 2552).
Reference Method : US EPAMethod Part 50 App. F (Chemiluminescence)

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Analysis / Test Report

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 23128811
Date Received : Dec 01, 2023
Date Reported : Dec 08, 2023
Report Number: 2859236-1

Sample Description Air Quality
Location บ้านซากหิน (A3) (GPS 47P 0751712, 1426384)
Parameter Nitrogen dioxide (ppm)
Measurement Date Nov 23, 2023 - Nov 30, 2023
Measurement by Mongkon Phalathip

Time	23128811-15 Nov 23, 2023	23128811-16 Nov 24, 2023	23128811-17 Nov 25, 2023	23128811-18 Nov 26, 2023	23128811-19 Nov 27, 2023	23128811-20 Nov 28, 2023	23128811-21 Nov 29, 2023
10:00 AM - 11:00 AM	0.011	0.003	0.005	0.009	0.002	0.002	0.004
11:00 AM - 12:00 PM	0.012	0.002	0.010	0.006	0.005	0.003	0.003
12:00 PM - 01:00 PM	0.011	0.004	0.009	0.012	0.003	0.003	0.002
01:00 PM - 02:00 PM	0.008	0.003	0.010	0.001	0.003	0.002	0.003
02:00 PM - 03:00 PM	0.003	0.003	0.011	0.001	0.002	0.004	0.003
03:00 PM - 04:00 PM	0.002	0.002	0.008	0.001	0.002	0.002	0.002
04:00 PM - 05:00 PM	0.001	0.001	0.007	0.002	0.002	0.003	0.003
05:00 PM - 06:00 PM	0.001	<0.001	0.002	0.002	0.002	0.001	0.003
06:00 PM - 07:00 PM	0.001	0.001	0.003	0.001	0.001	0.001	0.002
07:00 PM - 08:00 PM	0.002	0.001	0.002	0.002	0.002	0.001	0.001
08:00 PM - 09:00 PM	0.002	0.001	0.002	0.002	0.001	0.001	0.002
09:00 PM - 10:00 PM	0.001	0.001	0.002	0.001	0.001	0.001	<0.001
10:00 PM - 11:00 PM	0.002	0.002	0.002	0.001	0.001	0.002	<0.001
11:00 PM - 12:00 AM	0.001	0.001	0.002	<0.001	0.001	0.001	0.002
12:00 AM - 01:00 AM	0.001	0.001	0.002	<0.001	0.001	0.001	0.002
01:00 AM - 02:00 AM	0.001	0.001	0.004	0.002	0.001	0.003	0.001
02:00 AM - 03:00 AM	<0.001	0.002	0.006	0.001	0.002	0.003	0.001
03:00 AM - 04:00 AM	<0.001	0.002	0.010	0.003	0.001	0.003	0.001
04:00 AM - 05:00 AM	0.001	0.002	0.014	0.004	0.001	0.003	0.003
05:00 AM - 06:00 AM	0.003	0.002	0.002	0.004	0.004	0.003	0.001
06:00 AM - 07:00 AM	0.009	0.002	0.004	0.006	0.002	0.002	0.002
07:00 AM - 08:00 AM	0.011	0.006	0.022	0.005	0.004	0.003	0.004
08:00 AM - 09:00 AM	0.008	0.004	0.028	0.006	0.004	0.002	0.009
09:00 AM - 10:00 AM	0.006	0.003	0.017	0.003	0.005	0.002	0.004
Average	0.004	0.002	0.008	0.003	0.002	0.002	0.002
1hr - Maximum	0.012	0.006	0.028	0.012	0.005	0.004	0.009
Standard 1hr - Average	0.170	0.170	0.170	0.170	0.170	0.170	0.170

Standard : Notification of the National Environment Board No. 33, 2009 (B.E. 2552).
Reference Method : US EPAMethod Part 50 App. F (Chemiluminescence)

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Scientist (3)

Analysis / Test Report

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 23128811
Date Received : Dec 01, 2023
Date Reported : Dec 08, 2023
Report Number: 2859237-1

Sample Description Air Quality
Location วัดหนองกรับ (A4) (GPS 47P 0751171, 1425552)
Parameter Nitrogen dioxide (ppm)
Measurement Date Nov 23, 2023 - Nov 30, 2023
Measurement by Mongkon Phalathip

Time	23128811-22 Nov 23, 2023	23128811-23 Nov 24, 2023	23128811-24 Nov 25, 2023	23128811-25 Nov 26, 2023	23128811-26 Nov 27, 2023	23128811-27 Nov 28, 2023	23128811-28 Nov 29, 2023
01:00 PM - 02:00 PM	0.006	0.007	0.015	0.008	0.008	0.009	0.007
02:00 PM - 03:00 PM	0.005	0.005	0.005	0.007	0.005	0.007	0.005
03:00 PM - 04:00 PM	0.005	0.005	0.003	0.006	0.005	0.004	0.005
04:00 PM - 05:00 PM	0.005	0.005	0.002	0.006	0.004	0.004	0.005
05:00 PM - 06:00 PM	0.005	0.005	0.006	0.006	0.004	0.004	0.006
06:00 PM - 07:00 PM	0.006	0.006	0.008	0.008	0.004	0.004	0.006
07:00 PM - 08:00 PM	0.005	0.005	0.008	0.008	0.005	0.005	0.005
08:00 PM - 09:00 PM	0.007	0.007	0.011	0.008	0.006	0.006	0.005
09:00 PM - 10:00 PM	0.009	0.007	0.013	0.008	0.007	0.006	0.008
10:00 PM - 11:00 PM	0.008	0.007	0.015	0.009	0.011	0.008	0.012
11:00 PM - 12:00 AM	0.009	0.013	0.010	0.012	0.013	0.015	0.018
12:00 AM - 01:00 AM	0.009	0.017	0.012	0.013	0.009	0.014	0.017
01:00 AM - 02:00 AM	0.007	0.010	0.012	0.007	0.007	0.018	0.011
02:00 AM - 03:00 AM	0.007	0.007	0.006	0.006	0.005	0.006	0.007
03:00 AM - 04:00 AM	0.006	0.006	0.005	0.006	0.004	0.004	0.007
04:00 AM - 05:00 AM	0.004	0.006	0.004	0.004	0.005	0.003	0.005
05:00 AM - 06:00 AM	0.004	0.005	0.005	0.003	0.008	0.004	0.004
06:00 AM - 07:00 AM	0.003	0.005	0.004	0.003	0.003	0.004	0.005
07:00 AM - 08:00 AM	0.004	0.005	0.004	0.003	0.005	0.003	0.005
08:00 AM - 09:00 AM	0.005	0.009	0.007	0.006	0.006	0.008	0.005
09:00 AM - 10:00 AM	0.008	0.012	0.009	0.010	0.008	0.014	0.009
10:00 AM - 11:00 AM	0.030	0.017	0.013	0.019	0.015	0.023	0.010
11:00 AM - 12:00 PM	0.045	0.019	0.011	0.020	0.018	0.036	0.010
12:00 PM - 01:00 PM	0.020	0.008	0.008	0.011	0.011	0.011	0.007
Average	0.009	0.008	0.008	0.008	0.007	0.009	0.008
1hr - Maximum	0.045	0.019	0.015	0.020	0.018	0.036	0.018
Standard 1hr - Average	0.170	0.170	0.170	0.170	0.170	0.170	0.170

Standard : Notification of the National Environment Board No. 33, 2009 (B.E. 2552).
Reference Method : US EPAMethod Part 50 App. F (Chemiluminescence)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

Approved by

Orawan Rakyong
Scientist (3)

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 23128811
Date Received : Dec 01, 2023
Date Reported : Dec 08, 2023
Report Number: 2859238-1

Sample Description Air Quality
Location บ้านมาบป่าหวาย (A5) (GPS 47P 0753753, 1429586)
Parameter Nitrogen dioxide (ppm)
Measurement Date Nov 23, 2023 - Nov 30, 2023
Measurement by Mongkon Phalathip

Time	23128811-29 Nov 23, 2023	23128811-30 Nov 24, 2023	23128811-31 Nov 25, 2023	23128811-32 Nov 26, 2023	23128811-33 Nov 27, 2023	23128811-34 Nov 28, 2023	23128811-35 Nov 29, 2023
09:00 AM - 10:00 AM	0.002	0.004	0.002	0.002	0.014	0.002	0.003
10:00 AM - 11:00 AM	0.004	0.002	0.002	0.004	0.011	0.002	0.002
11:00 AM - 12:00 PM	0.002	0.002	0.002	0.003	0.006	0.002	0.003
12:00 PM - 01:00 PM	0.002	0.002	0.002	0.015	0.004	0.002	0.005
01:00 PM - 02:00 PM	0.013	0.002	0.002	0.002	0.004	0.002	0.003
02:00 PM - 03:00 PM	0.002	0.002	0.002	0.002	0.003	0.002	0.002
03:00 PM - 04:00 PM	0.002	0.002	0.002	0.002	0.002	0.002	0.006
04:00 PM - 05:00 PM	0.003	0.002	0.002	0.002	0.003	0.002	0.003
05:00 PM - 06:00 PM	0.002	0.002	0.002	0.002	0.003	0.002	0.002
06:00 PM - 07:00 PM	0.003	0.002	0.002	0.002	0.003	0.002	0.002
07:00 PM - 08:00 PM	0.002	0.002	0.003	0.002	0.003	0.002	0.002
08:00 PM - 09:00 PM	0.003	0.002	0.002	0.002	0.003	0.002	0.002
09:00 PM - 10:00 PM	0.002	0.002	0.002	0.003	0.007	0.002	0.002
10:00 PM - 11:00 PM	0.002	0.002	0.002	0.002	0.016	0.002	0.003
11:00 PM - 12:00 AM	0.002	0.002	0.002	0.002	0.008	0.002	0.003
12:00 AM - 01:00 AM	0.002	0.003	0.002	0.002	0.003	0.002	0.002
01:00 AM - 02:00 AM	0.002	0.002	0.002	0.002	0.003	0.002	0.003
02:00 AM - 03:00 AM	0.002	0.002	0.002	0.002	0.003	0.002	0.002
03:00 AM - 04:00 AM	0.002	0.002	0.002	0.002	0.003	0.002	0.002
04:00 AM - 05:00 AM	0.002	0.002	0.002	0.002	0.004	0.002	0.002
05:00 AM - 06:00 AM	0.002	0.002	0.002	0.002	0.004	0.002	0.003
06:00 AM - 07:00 AM	0.002	0.002	0.002	0.002	0.009	0.002	0.002
07:00 AM - 08:00 AM	0.003	0.003	0.003	0.003	0.008	0.002	0.002
08:00 AM - 09:00 AM	0.003	0.003	0.002	0.003	0.016	0.002	0.004
Average	0.003	0.002	0.002	0.003	0.006	0.002	0.003
1hr - Maximum	0.013	0.004	0.003	0.015	0.016	0.002	0.006
Standard 1hr - Average	0.170	0.170	0.170	0.170	0.170	0.170	0.170

Standard : Notification of the National Environment Board No. 33, 2009 (B.E. 2552).
Reference Method : US EPAMethod Part 50 App. F (Chemiluminescence)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

Approved by
Orawan Rakyong
Scientist (3)

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 23128819
Date Received : Dec 01, 2023
Date Reported : Dec 14, 2023
Report Number: 2825338-1

Sample Description Air Quality
Location บ้านหัวทุ่ง (A1) (GPS 47P 0751521, 1422060)
Parameter Ozone (ppm)
Measurement Date Nov 23, 2023 - Nov 30, 2023
Measurement by Mongkon Phalathip

Time	23128819-1 Nov 23, 2023	23128819-2 Nov 24, 2023	23128819-3 Nov 25, 2023	23128819-4 Nov 26, 2023	23128819-5 Nov 27, 2023	23128819-6 Nov 28, 2023	23128819-7 Nov 29, 2023
12:00 PM - 01:00 PM	0.006	0.006	0.004	0.007	0.009	0.005	0.006
01:00 PM - 02:00 PM	0.005	0.006	0.005	0.008	0.007	0.007	0.006
02:00 PM - 03:00 PM	0.007	0.008	0.005	0.007	0.006	0.006	0.006
03:00 PM - 04:00 PM	0.009	0.008	0.006	0.006	0.007	0.009	0.008
04:00 PM - 05:00 PM	0.008	0.010	0.006	0.007	0.007	0.012	0.011
05:00 PM - 06:00 PM	0.009	0.014	0.011	0.006	0.009	0.014	0.014
06:00 PM - 07:00 PM	0.009	0.015	0.010	0.006	0.009	0.011	0.013
07:00 PM - 08:00 PM	0.008	0.012	0.012	0.007	0.006	0.010	0.010
08:00 PM - 09:00 PM	0.008	0.010	0.007	0.005	0.007	0.007	0.008
09:00 PM - 10:00 PM	0.007	0.008	0.004	0.004	0.005	0.006	0.007
10:00 PM - 11:00 PM	0.005	0.007	0.005	0.004	0.004	0.006	0.006
11:00 PM - 12:00 AM	0.005	0.006	0.005	0.004	0.003	0.006	0.005
12:00 AM - 01:00 AM	0.004	0.006	0.006	0.003	0.003	0.004	0.007
01:00 AM - 02:00 AM	0.004	0.005	0.005	0.004	0.003	0.006	0.006
02:00 AM - 03:00 AM	0.006	0.008	0.005	0.005	0.004	0.006	0.007
03:00 AM - 04:00 AM	0.008	0.010	0.006	0.005	0.006	0.008	0.009
04:00 AM - 05:00 AM	0.009	0.010	0.007	0.005	0.009	0.012	0.008
05:00 AM - 06:00 AM	0.010	0.010	0.009	0.005	0.009	0.012	0.007
06:00 AM - 07:00 AM	0.010	0.006	0.007	0.004	0.007	0.010	0.006
07:00 AM - 08:00 AM	0.002	0.005	0.006	0.005	0.007	0.006	0.005
08:00 AM - 09:00 AM	0.004	0.005	0.004	0.004	0.006	0.006	0.004
09:00 AM - 10:00 AM	0.003	0.005	0.004	0.004	0.003	0.005	0.005
10:00 AM - 11:00 AM	0.003	0.004	0.003	0.004	0.004	0.005	0.005
11:00 AM - 12:00 PM	0.002	0.005	0.005	0.005	0.003	0.005	0.004
Average	0.006	0.008	0.006	0.005	0.006	0.008	0.007
1hr - Maximum	0.010	0.015	0.012	0.008	0.009	0.014	0.014
Standard 1hr - Average	0.10	0.10	0.10	0.10	0.10	0.10	0.10

Standard : Notification of the National Environment Board No. 28, 2007 (B.E. 2550).
Reference Method : Ozone Analyzer

Approved by

Orawan Rakyong
Scientist (3)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 23128819
Date Received : Dec 01, 2023
Date Reported : Dec 14, 2023
Report Number: 2863796-1

Sample Description Air Quality
Location วัดหินโค่ง (A2) (GPS 47P 0755459, 1424183)
Parameter Ozone (ppm)
Measurement Date Nov 23, 2023 - Nov 30, 2023
Measurement by Mongkon Phalathip

Time	23128819-8 Nov 23, 2023	23128819-9 Nov 24, 2023	23128819-10 Nov 25, 2023	23128819-11 Nov 26, 2023	23128819-12 Nov 27, 2023	23128819-13 Nov 28, 2023	23128819-14 Nov 29, 2023
11:00 AM - 12:00 PM	0.011	0.003	0.005	0.006	0.005	0.003	0.004
12:00 PM - 01:00 PM	0.006	0.003	0.003	0.009	0.004	0.006	0.003
01:00 PM - 02:00 PM	0.006	0.002	0.004	0.006	0.003	0.003	0.003
02:00 PM - 03:00 PM	0.015	0.002	0.008	0.010	0.003	0.013	0.003
03:00 PM - 04:00 PM	0.003	0.003	0.005	0.012	0.003	0.017	0.003
04:00 PM - 05:00 PM	0.003	0.003	0.004	0.013	0.003	0.003	0.003
05:00 PM - 06:00 PM	0.004	0.004	0.013	0.012	0.003	0.003	0.004
06:00 PM - 07:00 PM	0.004	0.004	0.005	0.011	0.003	0.004	0.004
07:00 PM - 08:00 PM	0.004	0.004	0.004	0.005	0.003	0.004	0.009
08:00 PM - 09:00 PM	0.004	0.005	0.005	0.006	0.004	0.006	0.010
09:00 PM - 10:00 PM	0.004	0.004	0.005	0.014	0.003	0.004	0.009
10:00 PM - 11:00 PM	0.004	0.004	0.004	0.011	0.004	0.005	0.006
11:00 PM - 12:00 AM	0.005	0.004	0.004	0.008	0.005	0.004	0.005
12:00 AM - 01:00 AM	0.004	0.005	0.004	0.008	0.004	0.005	0.004
01:00 AM - 02:00 AM	0.003	0.004	0.004	0.005	0.004	0.004	0.004
02:00 AM - 03:00 AM	0.003	0.004	0.004	0.007	0.004	0.004	0.004
03:00 AM - 04:00 AM	0.003	0.004	0.004	0.006	0.004	0.004	0.004
04:00 AM - 05:00 AM	0.003	0.004	0.004	0.006	0.004	0.004	0.004
05:00 AM - 06:00 AM	0.003	0.004	0.004	0.007	0.003	0.003	0.004
06:00 AM - 07:00 AM	0.003	0.004	0.003	0.008	0.003	0.003	0.004
07:00 AM - 08:00 AM	0.003	0.004	0.005	0.009	0.003	0.003	0.004
08:00 AM - 09:00 AM	0.003	0.004	0.004	0.013	0.003	0.004	0.004
09:00 AM - 10:00 AM	0.004	0.004	0.005	0.011	0.004	0.005	0.005
10:00 AM - 11:00 AM	0.004	0.003	0.007	0.009	0.004	0.006	0.004
Average	0.004	0.004	0.005	0.009	0.004	0.005	0.005
1hr - Maximum	0.015	0.005	0.013	0.014	0.005	0.017	0.010
Standard 1hr - Average	0.10	0.10	0.10	0.10	0.10	0.10	0.10

Standard : Notification of the National Environment Board No. 28, 2007 (B.E. 2550).
Reference Method : Ozone Analyzer

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

Approved by
Orawan Rakyong
Scientist (3)

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 23128819
Date Received : Dec 01, 2023
Date Reported : Dec 14, 2023
Report Number: 2863798-1

Sample Description Air Quality
Location บ้านซากหิน (A3) (GPS 47P 0751712, 1426384)
Parameter Ozone (ppm)
Measurement Date Nov 23, 2023 - Nov 30, 2023
Measurement by Mongkon Phalathip

Time	23128819-15 Nov 23, 2023	23128819-16 Nov 24, 2023	23128819-17 Nov 25, 2023	23128819-18 Nov 26, 2023	23128819-19 Nov 27, 2023	23128819-20 Nov 28, 2023	23128819-21 Nov 29, 2023
10:00 AM - 11:00 AM	0.002	0.007	0.004	0.005	0.004	0.010	0.006
11:00 AM - 12:00 PM	0.004	0.008	0.004	0.004	0.007	0.006	0.004
12:00 PM - 01:00 PM	0.007	0.010	0.003	0.006	0.007	0.006	0.003
01:00 PM - 02:00 PM	0.005	0.008	0.003	0.006	0.008	0.008	0.005
02:00 PM - 03:00 PM	0.004	0.006	0.006	0.004	0.006	0.006	0.004
03:00 PM - 04:00 PM	0.009	0.004	0.006	0.003	0.006	0.006	0.005
04:00 PM - 05:00 PM	0.004	0.003	0.006	0.003	0.004	0.006	0.003
05:00 PM - 06:00 PM	0.002	0.004	0.005	0.004	0.003	0.006	0.002
06:00 PM - 07:00 PM	0.002	0.004	0.004	0.002	0.002	0.004	0.002
07:00 PM - 08:00 PM	0.003	0.003	0.004	0.003	0.005	0.003	0.002
08:00 PM - 09:00 PM	0.003	0.002	0.003	0.004	0.004	0.004	0.002
09:00 PM - 10:00 PM	0.001	0.003	0.004	0.004	0.004	0.006	0.002
10:00 PM - 11:00 PM	0.002	0.003	0.006	0.006	0.004	0.005	0.006
11:00 PM - 12:00 AM	0.005	0.003	0.004	0.003	0.004	0.006	0.002
12:00 AM - 01:00 AM	0.003	0.002	0.002	0.003	0.002	0.003	0.003
01:00 AM - 02:00 AM	0.003	0.003	0.002	0.003	0.002	0.002	0.002
02:00 AM - 03:00 AM	0.001	0.002	0.003	0.002	0.001	0.002	0.005
03:00 AM - 04:00 AM	0.001	0.002	0.001	0.007	0.001	0.003	0.007
04:00 AM - 05:00 AM	0.002	0.002	0.001	0.006	0.002	0.002	0.003
05:00 AM - 06:00 AM	0.004	0.002	0.003	0.001	0.002	0.002	0.003
06:00 AM - 07:00 AM	0.004	0.001	0.003	0.002	0.002	0.003	0.009
07:00 AM - 08:00 AM	0.006	0.002	0.004	0.003	0.007	0.003	0.009
08:00 AM - 09:00 AM	0.006	0.003	0.002	0.004	0.009	0.003	0.006
09:00 AM - 10:00 AM	0.006	0.002	0.004	0.003	0.004	0.003	0.004
Average	0.004	0.004	0.004	0.004	0.004	0.005	0.004
1hr - Maximum	0.009	0.010	0.006	0.007	0.009	0.010	0.009
Standard 1hr - Average	0.10	0.10	0.10	0.10	0.10	0.10	0.10

Standard : Notification of the National Environment Board No. 28, 2007 (B.E. 2550).
Reference Method : Ozone Analyzer

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

Approved by
Orawan Rakyong
Scientist (3)

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 23128819
Date Received : Dec 01, 2023
Date Reported : Dec 14, 2023
Report Number: 2863800-1

Sample Description Air Quality
Location วัดหนองกรับ (A4) (GPS 47P 0751171, 1425552)
Parameter Ozone (ppm)
Measurement Date Nov 23, 2023 - Nov 30, 2023
Measurement by Mongkon Phalathip

Time	23128819-22 Nov 23, 2023	23128819-23 Nov 24, 2023	23128819-24 Nov 25, 2023	23128819-25 Nov 26, 2023	23128819-26 Nov 27, 2023	23128819-27 Nov 28, 2023	23128819-28 Nov 29, 2023
01:00 PM - 02:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
02:00 PM - 03:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
03:00 PM - 04:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
04:00 PM - 05:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
05:00 PM - 06:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
06:00 PM - 07:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
07:00 PM - 08:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
08:00 PM - 09:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
09:00 PM - 10:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
10:00 PM - 11:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11:00 PM - 12:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12:00 AM - 01:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
01:00 AM - 02:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
02:00 AM - 03:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
03:00 AM - 04:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
04:00 AM - 05:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
05:00 AM - 06:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
06:00 AM - 07:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
07:00 AM - 08:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
08:00 AM - 09:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
09:00 AM - 10:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
10:00 AM - 11:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11:00 AM - 12:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12:00 PM - 01:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Average	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1hr - Maximum	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Standard 1hr - Average	0.10	0.10	0.10	0.10	0.10	0.10	0.10

Standard : Notification of the National Environment Board No. 28, 2007 (B.E. 2550).
Reference Method : Ozone Analyzer

Approved by

Orawan Rakyong
Scientist (3)

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Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 23128819
Date Received : Dec 01, 2023
Date Reported : Dec 14, 2023
Report Number: 2863802-1

Sample Description Air Quality
Location บ้านมาบป่าหวาย (A5) (GPS 47P 0753753, 1429586)
Parameter Ozone (ppm)
Measurement Date Nov 23, 2023 - Nov 30, 2023
Measurement by Mongkon Phalathip

Time	23128819-29 Nov 23, 2023	23128819-30 Nov 24, 2023	23128819-31 Nov 25, 2023	23128819-32 Nov 26, 2023	23128819-33 Nov 27, 2023	23128819-34 Nov 28, 2023	23128819-35 Nov 29, 2023
09:00 AM - 10:00 AM	0.003	0.003	0.002	0.005	0.003	0.003	0.006
10:00 AM - 11:00 AM	0.004	0.003	0.003	0.009	0.002	0.005	0.005
11:00 AM - 12:00 PM	0.002	0.004	0.003	0.005	0.002	0.004	0.003
12:00 PM - 01:00 PM	0.001	0.002	0.003	0.007	0.003	0.004	0.003
01:00 PM - 02:00 PM	0.001	0.002	0.005	0.009	0.003	0.005	0.003
02:00 PM - 03:00 PM	0.002	0.004	0.006	0.008	0.003	0.006	0.003
03:00 PM - 04:00 PM	0.003	0.005	0.006	0.009	0.004	0.002	0.005
04:00 PM - 05:00 PM	0.006	0.005	0.006	0.010	0.006	0.003	0.001
05:00 PM - 06:00 PM	0.008	0.006	0.010	0.007	0.004	0.004	0.004
06:00 PM - 07:00 PM	0.011	0.005	0.007	0.006	0.004	0.006	0.005
07:00 PM - 08:00 PM	0.010	0.003	0.005	0.003	0.004	0.004	0.005
08:00 PM - 09:00 PM	0.009	0.006	0.004	0.003	0.005	0.007	0.004
09:00 PM - 10:00 PM	0.004	0.004	0.003	0.002	0.003	0.003	0.002
10:00 PM - 11:00 PM	0.003	0.003	0.002	0.003	0.004	0.001	0.002
11:00 PM - 12:00 AM	0.003	0.004	0.002	0.003	0.005	0.002	0.001
12:00 AM - 01:00 AM	0.004	0.005	0.002	0.004	0.002	0.001	0.002
01:00 AM - 02:00 AM	0.004	0.005	0.002	0.003	0.002	0.001	0.002
02:00 AM - 03:00 AM	0.005	0.005	0.002	0.002	0.002	0.002	0.002
03:00 AM - 04:00 AM	0.004	0.004	0.002	0.002	0.002	0.001	0.002
04:00 AM - 05:00 AM	0.003	0.002	0.001	0.002	0.002	0.001	0.002
05:00 AM - 06:00 AM	0.003	0.002	0.001	0.003	0.002	0.002	0.002
06:00 AM - 07:00 AM	0.004	0.002	0.002	0.004	0.002	0.003	0.002
07:00 AM - 08:00 AM	0.002	0.004	0.001	0.004	0.002	0.003	0.002
08:00 AM - 09:00 AM	0.002	0.005	0.004	0.004	0.004	0.003	0.001
Average	0.004	0.004	0.003	0.005	0.003	0.003	0.003
1hr - Maximum	0.011	0.006	0.010	0.010	0.006	0.007	0.006
Standard 1hr - Average	0.10	0.10	0.10	0.10	0.10	0.10	0.10

Standard : Notification of the National Environment Board No. 28, 2007 (B.E. 2550).
Reference Method : Ozone Analyzer

Approved by

Orawan Rakyong
Scientist (3)

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Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 23128823
Date Received : Dec 01, 2023
Date Reported : Dec 08, 2023
Report Number: 2825341-1

Sample Description Air Quality
Location บ้านหัวทุ่ง (A1) (GPS 47P 0751521, 1422060)
Parameter Sulfur Dioxide (ppm)
Measurement Date Nov 23, 2023 - Nov 30, 2023
Measurement by Mongkon Phalathip

Time	23128823-1 Nov 23, 2023	23128823-2 Nov 24, 2023	23128823-3 Nov 25, 2023	23128823-4 Nov 26, 2023	23128823-5 Nov 27, 2023	23128823-6 Nov 28, 2023	23128823-7 Nov 29, 2023
12:00 PM - 01:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
01:00 PM - 02:00 PM	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
02:00 PM - 03:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
03:00 PM - 04:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
04:00 PM - 05:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
05:00 PM - 06:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
06:00 PM - 07:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
07:00 PM - 08:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
08:00 PM - 09:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
09:00 PM - 10:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
10:00 PM - 11:00 PM	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001
11:00 PM - 12:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12:00 AM - 01:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
01:00 AM - 02:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
02:00 AM - 03:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
03:00 AM - 04:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
04:00 AM - 05:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
05:00 AM - 06:00 AM	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
06:00 AM - 07:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
07:00 AM - 08:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
08:00 AM - 09:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
09:00 AM - 10:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
10:00 AM - 11:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11:00 AM - 12:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Average	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1hr - Maximum	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001
Standard 1hr - Average	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Standard 24 hrs - Average	0.12	0.12	0.12	0.12	0.12	0.12	0.12

Standard : Notification of the National Environment Board No.10, 1995 (B.E.2538), No. 21, 2001 (B.E.2544) and No.24, 2004 (B.E.2547).
Reference Method : US EPA Method Part 53 and 58

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Approved by
Orawan Rakyong
Scientist (3)

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 23128823
Date Received : Dec 01, 2023
Date Reported : Dec 08, 2023
Report Number: 2859241-1

Sample Description Air Quality
Location วัดหินโค่ง (A2) (GPS 47P 0755459, 1424183)
Parameter Sulfur Dioxide (ppm)
Measurement Date Nov 23, 2023 - Nov 30, 2023
Measurement by Mongkon Phalathip

Time	23128823-8 Nov 23, 2023	23128823-9 Nov 24, 2023	23128823-10 Nov 25, 2023	23128823-11 Nov 26, 2023	23128823-12 Nov 27, 2023	23128823-13 Nov 28, 2023	23128823-14 Nov 29, 2023
11:00 AM - 12:00 PM	0.002	0.001	0.002	0.002	0.002	0.002	0.002
12:00 PM - 01:00 PM	0.002	0.001	0.001	0.002	0.002	0.001	0.002
01:00 PM - 02:00 PM	0.002	0.001	0.001	0.001	0.002	0.001	0.001
02:00 PM - 03:00 PM	0.002	0.001	0.001	0.001	0.002	0.002	0.001
03:00 PM - 04:00 PM	0.001	0.001	0.001	0.010	0.002	0.001	0.001
04:00 PM - 05:00 PM	0.002	0.001	0.001	0.012	0.002	0.002	0.002
05:00 PM - 06:00 PM	0.001	0.002	0.001	0.005	0.003	0.002	0.002
06:00 PM - 07:00 PM	0.002	<0.001	0.002	0.002	0.002	0.002	0.002
07:00 PM - 08:00 PM	0.002	0.002	0.002	0.002	0.002	0.002	0.001
08:00 PM - 09:00 PM	0.001	0.002	0.003	0.002	0.002	0.001	0.002
09:00 PM - 10:00 PM	0.001	0.002	0.002	0.002	0.002	0.002	0.002
10:00 PM - 11:00 PM	0.002	0.003	0.002	0.002	0.001	0.002	<0.001
11:00 PM - 12:00 AM	0.002	0.002	0.001	0.001	0.002	0.001	<0.001
12:00 AM - 01:00 AM	0.002	0.003	0.001	0.001	0.002	0.001	<0.001
01:00 AM - 02:00 AM	0.001	0.002	0.001	0.001	0.001	<0.001	0.001
02:00 AM - 03:00 AM	0.002	<0.001	0.001	0.001	0.001	0.001	<0.001
03:00 AM - 04:00 AM	0.002	<0.001	0.001	<0.001	0.001	0.001	<0.001
04:00 AM - 05:00 AM	0.002	<0.001	0.002	<0.001	<0.001	0.001	<0.001
05:00 AM - 06:00 AM	0.003	<0.001	0.002	0.001	<0.001	<0.001	<0.001
06:00 AM - 07:00 AM	0.002	<0.001	0.001	0.001	0.001	0.001	<0.001
07:00 AM - 08:00 AM	0.002	<0.001	0.002	0.002	0.001	0.001	<0.001
08:00 AM - 09:00 AM	0.002	0.001	0.001	0.002	0.001	0.002	0.001
09:00 AM - 10:00 AM	0.002	0.001	0.002	0.002	0.001	0.002	0.001
10:00 AM - 11:00 AM	0.002	0.002	0.002	0.002	0.001	0.002	0.002
Average	0.002	0.001	0.002	0.002	0.002	0.001	0.001
1hr - Maximum	0.003	0.003	0.003	0.012	0.003	0.002	0.002
Standard 1hr - Average	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Standard 24 hrs - Average	0.12	0.12	0.12	0.12	0.12	0.12	0.12

Standard : Notification of the National Environment Board No.10, 1995 (B.E.2538), No. 21, 2001 (B.E.2544) and No.24, 2004 (B.E.2547).
Reference Method : US EPA Method Part 53 and 58

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Orawan Rakyong
Scientist (3)

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 23128823
Date Received : Dec 01, 2023
Date Reported : Dec 08, 2023
Report Number: 2859242-1

Sample Description Air Quality
Location บ้านซากหิน (A3) (GPS 47P 0751712, 1426384)
Parameter Sulfur Dioxide (ppm)
Measurement Date Nov 23, 2023 - Nov 30, 2023
Measurement by Mongkon Phalathip

Time	23128823-15 Nov 23, 2023	23128823-16 Nov 24, 2023	23128823-17 Nov 25, 2023	23128823-18 Nov 26, 2023	23128823-19 Nov 27, 2023	23128823-20 Nov 28, 2023	23128823-21 Nov 29, 2023
10:00 AM - 11:00 AM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
11:00 AM - 12:00 PM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
12:00 PM - 01:00 PM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
01:00 PM - 02:00 PM	0.002	0.002	0.002	0.002	0.001	0.002	0.002
02:00 PM - 03:00 PM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
03:00 PM - 04:00 PM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
04:00 PM - 05:00 PM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
05:00 PM - 06:00 PM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
06:00 PM - 07:00 PM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
07:00 PM - 08:00 PM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
08:00 PM - 09:00 PM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
09:00 PM - 10:00 PM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
10:00 PM - 11:00 PM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
11:00 PM - 12:00 AM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
12:00 AM - 01:00 AM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
01:00 AM - 02:00 AM	0.002	0.002	0.002	0.002	0.001	0.002	0.002
02:00 AM - 03:00 AM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
03:00 AM - 04:00 AM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
04:00 AM - 05:00 AM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
05:00 AM - 06:00 AM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
06:00 AM - 07:00 AM	0.002	0.002	0.002	0.002	0.001	0.002	0.002
07:00 AM - 08:00 AM	0.002	0.002	0.002	0.002	<0.001	0.002	0.002
08:00 AM - 09:00 AM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
09:00 AM - 10:00 AM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Average	0.002	0.002	0.002	0.002	0.002	0.002	0.002
1hr - Maximum	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Standard 1hr - Average	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Standard 24 hrs - Average	0.12	0.12	0.12	0.12	0.12	0.12	0.12

Standard : Notification of the National Environment Board No.10, 1995 (B.E.2538), No. 21, 2001 (B.E.2544) and No.24, 2004 (B.E.2547).
Reference Method : US EPA Method Part 53 and 58

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Orawan Rakyong
Scientist (3)

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 23128823
Date Received : Dec 01, 2023
Date Reported : Dec 08, 2023
Report Number: 2859243-1

Sample Description Air Quality
Location วัดหนองกรับ (A4) (GPS 47P 0751171, 1425552)
Parameter Sulfur Dioxide (ppm)
Measurement Date Nov 23, 2023 - Nov 30, 2023
Measurement by Mongkon Phalathip

Time	23128823-22 Nov 23, 2023	23128823-23 Nov 24, 2023	23128823-24 Nov 25, 2023	23128823-25 Nov 26, 2023	23128823-26 Nov 27, 2023	23128823-27 Nov 28, 2023	23128823-28 Nov 29, 2023
01:00 PM - 02:00 PM	0.004	0.008	0.004	0.003	0.004	0.004	0.004
02:00 PM - 03:00 PM	0.004	0.004	0.004	0.004	0.004	0.004	0.004
03:00 PM - 04:00 PM	0.004	0.004	0.004	0.004	0.004	0.004	0.004
04:00 PM - 05:00 PM	0.004	0.004	0.004	0.004	0.004	0.004	0.004
05:00 PM - 06:00 PM	0.004	0.004	0.004	0.004	0.004	0.004	0.004
06:00 PM - 07:00 PM	0.005	0.004	0.004	0.004	0.004	0.004	0.004
07:00 PM - 08:00 PM	0.005	0.004	0.004	0.004	0.004	0.004	0.004
08:00 PM - 09:00 PM	0.004	0.004	0.004	0.004	0.004	0.004	0.004
09:00 PM - 10:00 PM	0.004	0.004	0.004	0.004	0.004	0.004	0.004
10:00 PM - 11:00 PM	0.004	0.004	0.004	0.004	0.004	0.004	0.004
11:00 PM - 12:00 AM	0.004	0.004	0.004	0.004	0.004	0.004	0.004
12:00 AM - 01:00 AM	0.004	0.004	0.004	0.004	0.004	0.004	0.004
01:00 AM - 02:00 AM	0.004	0.004	0.004	0.004	0.004	0.004	0.004
02:00 AM - 03:00 AM	0.004	0.004	0.004	0.004	0.004	0.004	0.004
03:00 AM - 04:00 AM	0.004	0.004	0.004	0.004	0.004	0.004	0.004
04:00 AM - 05:00 AM	0.004	0.004	0.004	0.004	0.004	0.004	0.004
05:00 AM - 06:00 AM	0.004	0.004	0.004	0.004	0.004	0.004	0.004
06:00 AM - 07:00 AM	0.004	0.004	0.004	0.004	0.004	0.004	0.004
07:00 AM - 08:00 AM	0.004	0.004	0.004	0.004	0.004	0.004	0.004
08:00 AM - 09:00 AM	0.004	0.004	0.004	0.004	0.004	0.004	0.004
09:00 AM - 10:00 AM	0.004	0.004	0.004	0.004	0.004	0.004	0.004
10:00 AM - 11:00 AM	0.004	0.004	0.004	0.004	0.004	0.004	0.004
11:00 AM - 12:00 PM	0.004	0.004	0.004	0.004	0.004	0.004	0.004
12:00 PM - 01:00 PM	0.004	0.004	0.004	0.004	0.004	0.004	0.004
Average	0.004	0.004	0.004	0.004	0.004	0.004	0.004
1hr - Maximum	0.005	0.008	0.004	0.004	0.004	0.004	0.004
Standard 1hr - Average	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Standard 24 hrs - Average	0.12	0.12	0.12	0.12	0.12	0.12	0.12

Standard : Notification of the National Environment Board No.10, 1995 (B.E.2538), No. 21, 2001 (B.E.2544) and No.24, 2004 (B.E.2547).
Reference Method : US EPA Method Part 53 and 58

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

Approved by
Orawan Rakyong
Scientist (3)

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 23128823
Date Received : Dec 01, 2023
Date Reported : Dec 08, 2023
Report Number: 2859245-1

Sample Description Air Quality
Location บ้านมาบป่าหวาย (A5) (GPS 47P 0753753, 1429586)
Parameter Sulfur Dioxide (ppm)
Measurement Date Nov 23, 2023 - Nov 30, 2023
Measurement by Mongkon Phalathip

Time	23128823-29 Nov 23, 2023	23128823-30 Nov 24, 2023	23128823-31 Nov 25, 2023	23128823-32 Nov 26, 2023	23128823-33 Nov 27, 2023	23128823-34 Nov 28, 2023	23128823-35 Nov 29, 2023
09:00 AM - 10:00 AM	0.002	0.002	0.001	0.002	0.002	0.002	0.002
10:00 AM - 11:00 AM	0.002	0.002	0.001	0.002	0.002	0.002	0.002
11:00 AM - 12:00 PM	0.002	0.002	0.001	0.002	0.002	0.002	0.002
12:00 PM - 01:00 PM	0.002	0.002	0.001	0.001	0.002	0.002	0.002
01:00 PM - 02:00 PM	0.002	0.002	0.002	0.001	0.002	0.002	0.002
02:00 PM - 03:00 PM	0.002	0.002	0.001	0.001	0.002	0.002	0.002
03:00 PM - 04:00 PM	0.002	0.002	0.001	0.001	0.001	0.002	0.002
04:00 PM - 05:00 PM	0.002	0.001	0.001	0.001	0.001	0.002	0.002
05:00 PM - 06:00 PM	0.002	0.001	0.001	0.001	0.001	0.002	0.002
06:00 PM - 07:00 PM	0.002	0.001	0.001	0.001	0.002	0.002	0.002
07:00 PM - 08:00 PM	0.002	0.001	0.001	0.001	0.002	0.001	0.002
08:00 PM - 09:00 PM	0.001	0.001	0.001	0.001	0.002	0.001	0.002
09:00 PM - 10:00 PM	0.001	0.001	0.001	0.001	0.002	0.001	0.002
10:00 PM - 11:00 PM	0.002	0.001	0.001	0.001	0.002	0.001	0.002
11:00 PM - 12:00 AM	0.001	0.001	0.001	0.002	0.002	0.002	0.002
12:00 AM - 01:00 AM	0.001	0.001	0.001	0.001	0.001	0.002	0.002
01:00 AM - 02:00 AM	0.001	0.001	0.001	0.001	0.002	0.002	0.002
02:00 AM - 03:00 AM	0.001	0.001	0.001	0.001	0.002	0.002	0.002
03:00 AM - 04:00 AM	0.001	0.001	0.001	0.001	0.002	0.002	0.002
04:00 AM - 05:00 AM	0.001	0.002	0.001	0.001	0.001	0.002	0.002
05:00 AM - 06:00 AM	0.001	0.002	0.001	0.001	0.001	0.002	0.002
06:00 AM - 07:00 AM	0.002	0.002	0.001	0.001	0.002	0.002	0.002
07:00 AM - 08:00 AM	0.002	0.002	0.001	0.002	0.002	0.002	0.002
08:00 AM - 09:00 AM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Average	0.002	0.001	0.001	0.001	0.001	0.002	0.002
1hr - Maximum	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Standard 1hr - Average	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Standard 24 hrs - Average	0.12	0.12	0.12	0.12	0.12	0.12	0.12

Standard : Notification of the National Environment Board No.10, 1995 (B.E.2538), No. 21, 2001 (B.E.2544) and No.24, 2004 (B.E.2547).
Reference Method : US EPA Method Part 53 and 58

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

Approved by
Orawan Rakyong
Scientist (3)

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 23128829
Date Received :Dec 01, 2023
Date Reported :Dec 11, 2023
Report Number :2825349-1

Sample Number 23128829-1 to 7
Parameter Wind Speed / Wind Direction
Location วัดหินโค่ง (A2) (GPS 47P 0755459, 1424183)
Sampling Date Nov 23 - Nov 30, 2023
Sampling by Mongkon Phalathip

Time	Nov 23 - Nov 24, 2023			Nov 24 - Nov 25, 2023			Nov 25 - Nov 26, 2023			Nov 26 - Nov 27, 2023			Nov 27 - Nov 28, 2023			Nov 28 - Nov 29, 2023			Nov 29 - Nov 30, 2023		
	WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)	
11:00 AM - 12:00 PM	0.6	97.0	E	2.3	278.0	W	5.1	58.0	ENE	2.8	46.0	NE	4.1	76.0	ENE	3.3	5.0	N	2.6	35.0	NE
12:00 PM - 01:00 PM	1.0	87.0	E	2.6	47.0	NE	3.1	28.0	NNE	3.1	57.0	ENE	5.1	1.0	N	4.3	117.0	ESE	2.7	359.0	N
01:00 PM - 02:00 PM	0.6	359.0	N	0.0	-	-	3.1	69.0	ENE	2.1	352.0	N	3.6	11.0	N	3.2	1.0	N	3.0	60.0	ENE
02:00 PM - 03:00 PM	0.3	341.0	NNW	3.5	42.0	NE	2.7	359.0	N	2.9	357.0	N	2.4	60.0	ENE	2.8	355.0	N	0.0	-	-
03:00 PM - 04:00 PM	0.2	-	-	2.5	40.0	NE	1.6	58.0	ENE	4.1	79.0	E	3.3	67.0	ENE	2.3	119.0	ESE	0.4	84.0	E
04:00 PM - 05:00 PM	0.1	-	-	3.0	359.0	N	1.6	96.0	E	2.0	51.0	NE	3.3	19.0	NNE	0.0	-	-	1.0	58.0	ENE
05:00 PM - 06:00 PM	0.3	95.0	E	1.1	55.0	NE	0.6	95.0	E	1.7	51.0	NE	1.8	34.0	NE	0.8	19.0	NNE	0.6	58.0	ENE
06:00 PM - 07:00 PM	0.1	-	-	1.2	47.0	NE	0.1	-	-	1.0	92.0	E	1.0	25.0	NNE	2.9	62.0	ENE	0.3	114.0	ESE
07:00 PM - 08:00 PM	0.2	-	-	2.5	54.0	NE	0.3	95.0	E	0.9	37.0	NE	0.6	25.0	NNE	1.3	60.0	ENE	0.2	-	-
08:00 PM - 09:00 PM	0.0	-	-	1.6	56.0	NE	1.0	95.0	E	0.5	30.0	NNE	0.2	-	-	0.6	45.0	NE	1.2	57.0	ENE
09:00 PM - 10:00 PM	0.0	-	-	1.0	115.0	ESE	0.6	95.0	E	0.2	-	-	1.2	25.0	NNE	0.3	125.0	SE	0.2	-	-
10:00 PM - 11:00 PM	0.1	-	-	0.6	115.0	ESE	0.2	-	-	0.3	30.0	NNE	1.0	25.0	NNE	0.2	-	-	0.3	290.0	WNW
11:00 PM - 12:00 AM	0.2	-	-	0.2	-	-	0.1	-	-	0.1	-	-	0.6	174.0	S	0.1	-	-	0.2	-	-
12:00 AM - 01:00 AM	0.1	-	-	0.5	269.0	W	0.3	94.0	E	0.1	-	-	0.0	-	-	0.3	216.0	SW	0.1	-	-
01:00 AM - 02:00 AM	0.0	-	-	0.0	-	-	0.1	-	-	0.3	116.0	ESE	1.4	304.0	NW	2.4	293.0	WNW	0.1	-	-
02:00 AM - 03:00 AM	0.2	-	-	0.0	-	-	0.9	277.0	W	0.2	-	-	0.0	-	-	1.6	319.0	NW	0.3	75.0	ENE
03:00 AM - 04:00 AM	0.3	95.0	E	1.7	4.0	N	0.0	-	-	0.3	306.0	NW	3.7	53.0	NE	0.1	-	-	0.2	-	-
04:00 AM - 05:00 AM	0.1	-	-	3.1	122.0	ESE	0.7	297.0	WNW	2.4	358.0	N	0.3	331.0	NNW	0.2	-	-	0.2	-	-
05:00 AM - 06:00 AM	0.1	-	-	0.0	-	-	1.0	309.0	NW	6.0	304.0	NW	0.2	-	-	0.1	-	-	0.1	-	-
06:00 AM - 07:00 AM	0.2	-	-	0.0	-	-	0.3	291.0	WNW	3.8	295.0	WNW	0.3	352.0	N	0.3	270.0	W	0.3	348.0	NNW
07:00 AM - 08:00 AM	0.6	66.0	ENE	1.3	66.0	ENE	0.2	-	-	3.6	345.0	NNW	0.3	0.0	N	0.3	288.0	WNW	0.2	-	-
08:00 AM - 09:00 AM	2.4	71.0	ENE	3.1	12.0	NNE	0.3	334.0	NNW	3.0	1.0	N	2.0	305.0	NW	2.1	292.0	WNW	0.1	-	-
09:00 AM - 10:00 AM	3.5	340.0	NNW	3.3	340.0	NNW	2.8	286.0	WNW	5.4	56.0	NE	4.0	107.0	ESE	0.2	-	-	0.2	-	-
10:00 AM - 11:00 AM	1.7	356.0	N	1.7	352.0	N	5.2	335.0	NNW	5.4	354.0	N	3.8	359.0	N	3.0	70.0	ENE	0.1	-	-

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

The above results are valid only for the analyzed/tested sample(s) as indicated in this report. No part of this report or certificate may be reproduced in any form without written consent from the Laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

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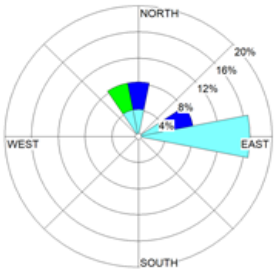
Sarayuth Jittranont
Assistant General Manager

Analysis / Test Report

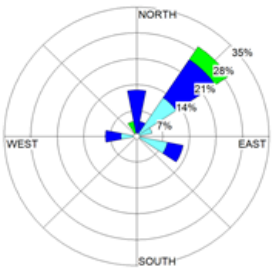
Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 23128829
Date Received :Dec 01, 2023
Date Reported :Dec 11, 2023
Report Number :2825349-1

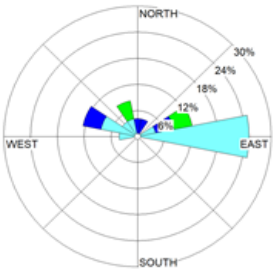
Wind Rose



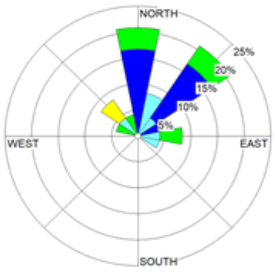
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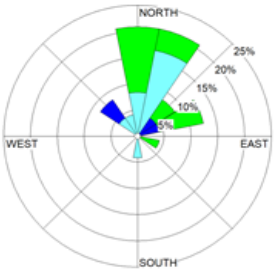
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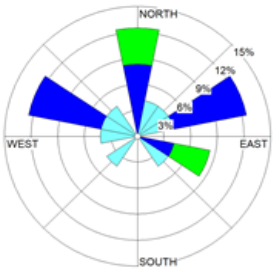
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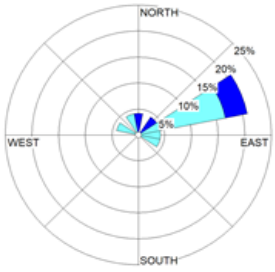
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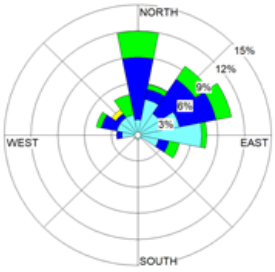
Date : Nov 27-28, 2023



Date : Nov 28-29, 2023



Date : Nov 29-30, 2023



Date : Nov 23-30, 2023

WS(m/s)		%
	≥ 10.0	0.00
	8.0-10.0	0.00
	5.5-8.0	0.60
	3.3-5.5	11.91
	1.7-3.3	21.43
	0.3-1.7	33.93
	Calms	32.14

The above results are valid only for the analyzed/tested sample(s) as indicated in this report. No part of this report or certificate may be reproduced in any form without written consent from the Laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

Approved by

Sarayuth Jittranont
Assistant General Manager

ภาคผนวก ฐ-2

คุณภาพน้ำผิวดิน

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-1
Sampled Date	Sep 14, 2023 9:50 AM
Sample Description	Surface Water
Location	SW1 : คลองปลากั้งช่วงก่อนไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0754352,1425178)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Aluminium	mg/L	0.003	0.005	0.06	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Arsenic	mg/L	0.0003	0.0005	0.007	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Barium	mg/L	0.0003	0.0005	0.06	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Copper	mg/L	0.0003	0.0005	Not Detected	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
[A] Iron	mg/L	0.003	0.005	1.15	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Lead	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

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Approved by

Narumon Banchongkit
Supervisor

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-1
Sampled Date	Sep 14, 2023 9:50 AM
Sample Description	Surface Water
Location	SW1 : คลองปลากั้งช่วงก่อนไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0754352,1425178)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Manganese	mg/L	0.0003	0.0005	0.44	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok
[A] Nickel	mg/L	0.0003	0.0005	Not Detected	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Selenium	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Silver	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	<0.01	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Zinc	mg/L	0.003	0.005	0.02	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							

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Approved by

Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-1
Sampled Date	Sep 14, 2023 9:50 AM
Sample Description	Surface Water
Location	SW1 : คลองปลากั้งช่วงก่อนไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0754352,1425178)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Microbiological Testing							
[A] Fecal Coliform	MPN/100mL	-	-	33.0	≤4000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B, E	Bangkok
[A] Total Coliform	MPN/100mL	-	-	790.0	≤20000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Pesticides - Organochlorine Group							
[A] 2,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 2,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 2,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 4,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 4,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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Approved by

Narumon Banchongkit
Supervisor

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-1
Sampled Date	Sep 14, 2023 9:50 AM
Sample Description	Surface Water
Location	SW1 : คลองปลากั้งช่วงก่อนไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0754352,1425178)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] 4,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Aldrin	ug/L	0.01	0.02	Not Detected	≤0.10	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] alpha-BHC	ug/L	0.01	0.02	Not Detected	≤0.02	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] alpha-Chlordane	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] beta-BHC	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Chlordane	ug/L	0.02	0.04	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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Analysis / Test Report

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3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-1
Sampled Date	Sep 14, 2023 9:50 AM
Sample Description	Surface Water
Location	SW1 : คลองปลากั้งช่วงก่อนไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0754352,1425178)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] DDT	ug/L	0.06	0.12	Not Detected	≤1	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] delta-BHC	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Dieldrin	ug/L	0.01	0.02	Not Detected	≤0.1	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endosulfan	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endosulfan I	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endosulfan II	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-1
Sampled Date	Sep 14, 2023 9:50 AM
Sample Description	Surface Water
Location	SW1 : คลองปลากั้งช่วงก่อนไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0754352,1425178)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] Endrin	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endrin aldehyde	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endrin ketone	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] gamma-Chlordane	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Heptachlor	ug/L	0.01	0.02	Not Detected	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Heptachlor and Heptachlor epoxide *	ug/L	0.01	0.02	Not Detected	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-1
Sampled Date	Sep 14, 2023 9:50 AM
Sample Description	Surface Water
Location	SW1 : คลองปลากั้งช่วงก่อนไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0754352,1425178)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] Heptachlor-Epoxide	ug/L	0.01	0.02	Not Detected	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Lindane (gamma-BHC)	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Methoxychlor	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	0.02	0.05	3.56	≤0.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NH3 (D)	Rayong
BOD (5 days at 20 Degree C) *	mg/L	-	2.0	<2.0	≤2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD *	mg/L	-	25	<25	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color *	Color unit	-	5	10	n	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 B	Rayong

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N.Banchongkit

Narumon Banchongkit
Supervisor

Analysis / Test Report

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-1
Sampled Date	Sep 14, 2023 9:50 AM
Sample Description	Surface Water
Location	SW1 : คลองปลากั้งช่วงก่อนไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0754352,1425178)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Cyanide as CN	mg/L	0.001	0.005	<0.005	≤0.005	In-house method : STM 02-003 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - CN (C, E)	Rayong
Dissolved Oxygen *	mg/L	-	0.1	6.8	≥4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Flow rate *	m3/s	-	-	0.021	No Standard	Flow meter	Rayong
Formaldehyde *	mg/L	0.03	0.1	Not Detected	No Standard	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Nitrate as N *	mg/L	0.015	0.05	<0.05	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong
Non-Carbonate Hardness as CaCO3 *	mg/L	-	1	<1	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2320 B	Rayong
Odour *		-	-	Odourless	n	TIS, 257-2549	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 D	Bangkok
pH at 25 degree C		-	-	7.4	5.0-9.0	In-house method : STM 02-005 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Phenol *	mg/L	0.0005	0.001	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong

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Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-1
Sampled Date	Sep 14, 2023 9:50 AM
Sample Description	Surface Water
Location	SW1 : คลองปลากั้งช่วงก่อนไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0754352,1425178)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Residual Free Chlorine *	mg/L	-	0.1	<0.1	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Sulfide *	mg/L	-	0.5	<0.5	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (C, F)	Rayong
Temperature *	Degree C	-	-	29.7	n'	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	117	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Hardness as CaCO3 *	mg/L	-	1	43	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2340 C	Rayong
Total Kjeldahl Nitrogen as N *	mg/L	-	1.0	4.4	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	<5	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazettle, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 3)
n': Change from Natural condition not more than 3 degree C
n : Not Change from natural condition
Sampling By : Paramet Sattayakun , Kardbundit Kitisupavanit

Remark :
- LOD : Limit of Detection

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- [A] Analysis conducted by ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Branch, DSS Accreditation No. 0009.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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Analysis / Test Report

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No.0042

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-2
Sampled Date	Sep 14, 2023 10:40 AM
Sample Description	Surface Water
Location	SW2 : คลองปลากั้งบริเวณจุดระบายน้ำทิ้งของโครงการ (GPS 47P 0753479,1424676)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Aluminium	mg/L	0.003	0.005	0.09	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Arsenic	mg/L	0.0003	0.0005	0.004	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Barium	mg/L	0.0003	0.0005	0.05	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Copper	mg/L	0.0003	0.0005	0.0006	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
[A] Iron	mg/L	0.003	0.005	1.11	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Lead	mg/L	0.0003	0.0005	<0.0005	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-2
Sampled Date	Sep 14, 2023 10:40 AM
Sample Description	Surface Water
Location	SW2 : คลองปลากั้งบริเวณจุดระบายน้ำทิ้งของโครงการ (GPS 47P 0753479,1424676)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Manganese	mg/L	0.0003	0.0005	0.31	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok
[A] Nickel	mg/L	0.0003	0.0005	<0.0005	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Selenium	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Silver	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	<0.01	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Zinc	mg/L	0.003	0.005	0.006	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-2
Sampled Date	Sep 14, 2023 10:40 AM
Sample Description	Surface Water
Location	SW2 : คลองปลากั้งบริเวณจุดระบายน้ำทิ้งของโครงการ (GPS 47P 0753479,1424676)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Microbiological Testing							
[A] Fecal Coliform	MPN/100mL	-	-	130.0	≤4000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B, E	Bangkok
[A] Total Coliform	MPN/100mL	-	-	2400.0	≤20000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Pesticides - Organochlorine Group							
[A] 2,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 2,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 2,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 4,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 4,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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Approved by

Narumon Banchongkit
Supervisor

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-2
Sampled Date	Sep 14, 2023 10:40 AM
Sample Description	Surface Water
Location	SW2 : คลองปลากั้งบริเวณจุดระบายน้ำทิ้งของโครงการ (GPS 47P 0753479,1424676)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] 4,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Aldrin	ug/L	0.01	0.02	Not Detected	≤0.10	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] alpha-BHC	ug/L	0.01	0.02	Not Detected	≤0.02	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] alpha-Chlordane	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] beta-BHC	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Chlordane	ug/L	0.02	0.04	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-2
Sampled Date	Sep 14, 2023 10:40 AM
Sample Description	Surface Water
Location	SW2 : คลองปลากั้งบริเวณจุดระบายน้ำทิ้งของโครงการ (GPS 47P 0753479,1424676)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] DDT	ug/L	0.06	0.12	Not Detected	≤1	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] delta-BHC	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Dieldrin	ug/L	0.01	0.02	Not Detected	≤0.1	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endosulfan	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endosulfan I	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endosulfan II	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-2
Sampled Date	Sep 14, 2023 10:40 AM
Sample Description	Surface Water
Location	SW2 : คลองปลากั้งบริเวณจุดระบายน้ำทิ้งของโครงการ (GPS 47P 0753479,1424676)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] Endrin	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endrin aldehyde	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endrin ketone	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] gamma-Chlordane	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Heptachlor	ug/L	0.01	0.02	Not Detected	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Heptachlor and Heptachlor epoxide *	ug/L	0.01	0.02	Not Detected	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-2
Sampled Date	Sep 14, 2023 10:40 AM
Sample Description	Surface Water
Location	SW2 : คลองปลากั้งบริเวณจุดระบายน้ำทิ้งของโครงการ (GPS 47P 0753479,1424676)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] Heptachlor-Epoxide	ug/L	0.01	0.02	Not Detected	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Lindane (gamma-BHC)	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Methoxychlor	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	0.02	0.05	0.75	≤0.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NH3 (D)	Rayong
BOD (5 days at 20 Degree C) *	mg/L	-	2.0	<2.0	≤2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD *	mg/L	-	25	<25	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color *	Color unit	-	5	10	n	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 B	Rayong

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-2
Sampled Date	Sep 14, 2023 10:40 AM
Sample Description	Surface Water
Location	SW2 : คลองปลากั้งบริเวณจุดระบายน้ำทิ้งของโครงการ (GPS 47P 0753479,1424676)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Cyanide as CN	mg/L	0.001	0.005	Not Detected	≤0.005	In-house method : STM 02-003 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - CN (C, E)	Rayong
Dissolved Oxygen *	mg/L	-	0.1	8.0	≥4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Flow rate *	m3/s	-	-	0.037	No Standard	Flow meter	Rayong
Formaldehyde *	mg/L	0.03	0.1	Not Detected	No Standard	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Nitrate as N *	mg/L	0.015	0.05	<0.05	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong
Non-Carbonate Hardness as CaCO3 *	mg/L	-	1	15	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2320 B	Rayong
Odour *		-	-	Odourless	n	TIS, 257-2549	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 D	Bangkok
pH at 25 degree C		-	-	7.2	5.0-9.0	In-house method : STM 02-005 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Phenol *	mg/L	0.0005	0.001	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-2
Sampled Date	Sep 14, 2023 10:40 AM
Sample Description	Surface Water
Location	SW2 : คลองปลากั้งบริเวณจุดระบายน้ำทิ้งของโครงการ (GPS 47P 0753479,1424676)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Residual Free Chlorine *	mg/L	-	0.1	<0.1	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Sulfide *	mg/L	-	0.5	<0.5	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (C, F)	Rayong
Temperature *	Degree C	-	-	29.4	n'	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	144	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Hardness as CaCO3 *	mg/L	-	1	58	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2340 C	Rayong
Total Kjeldahl Nitrogen as N *	mg/L	-	1.0	2.6	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	<5	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazettle, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 3)
n': Change from Natural condition not more than 3 degree C
n : Not Change from natural condition
Sampling By : Paramet Sattayakun , Kardbundit Kitisupavanit

Remark :
- LOD : Limit of Detection

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Narumon Banchongkit
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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- [A] Analysis conducted by ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Branch, DSS Accreditation No. 0009.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-3
Sampled Date	Sep 14, 2023 11:20 AM
Sample Description	Surface Water
Location	SW3 : คลองปลากั้งช่วงไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0752943,1424553)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Aluminium	mg/L	0.003	0.005	0.10	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Arsenic	mg/L	0.0003	0.0005	0.002	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Barium	mg/L	0.0003	0.0005	0.09	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Copper	mg/L	0.0003	0.0005	0.001	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
[A] Iron	mg/L	0.003	0.005	0.34	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Lead	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-3
Sampled Date	Sep 14, 2023 11:20 AM
Sample Description	Surface Water
Location	SW3 : คลองปลากั้งช่วงไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0752943,1424553)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Manganese	mg/L	0.0003	0.0005	0.99	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok
[A] Nickel	mg/L	0.0003	0.0005	0.05	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Selenium	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Silver	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	<0.01	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Zinc	mg/L	0.003	0.005	0.08	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							

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Narumon Banchongkit
Supervisor

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-3
Sampled Date	Sep 14, 2023 11:20 AM
Sample Description	Surface Water
Location	SW3 : คลองปลากั้งช่วงไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0752943,1424553)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Microbiological Testing							
[A] Fecal Coliform	MPN/100mL	-	-	490.0	≤4000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B, E	Bangkok
[A] Total Coliform	MPN/100mL	-	-	2400.0	≤20000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Pesticides - Organochlorine Group							
[A] 2,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 2,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 2,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 4,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 4,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-3
Sampled Date	Sep 14, 2023 11:20 AM
Sample Description	Surface Water
Location	SW3 : คลองปลากั้งช่วงไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0752943,1424553)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] 4,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Aldrin	ug/L	0.01	0.02	Not Detected	≤0.10	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] alpha-BHC	ug/L	0.01	0.02	Not Detected	≤0.02	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] alpha-Chlordane	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] beta-BHC	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Chlordane	ug/L	0.02	0.04	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-3
Sampled Date	Sep 14, 2023 11:20 AM
Sample Description	Surface Water
Location	SW3 : คลองปลากั้งช่วงไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0752943,1424553)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] DDT	ug/L	0.06	0.12	Not Detected	≤1	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] delta-BHC	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Dieldrin	ug/L	0.01	0.02	Not Detected	≤0.1	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endosulfan	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endosulfan I	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endosulfan II	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-3
Sampled Date	Sep 14, 2023 11:20 AM
Sample Description	Surface Water
Location	SW3 : คลองปลากั้งช่วงไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0752943,1424553)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] Endrin	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endrin aldehyde	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endrin ketone	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] gamma-Chlordane	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Heptachlor	ug/L	0.01	0.02	Not Detected	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Heptachlor and Heptachlor epoxide *	ug/L	0.01	0.02	Not Detected	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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Analysis / Test Report

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3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-3
Sampled Date	Sep 14, 2023 11:20 AM
Sample Description	Surface Water
Location	SW3 : คลองปลากั้งช่วงไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0752943,1424553)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] Heptachlor-Epoxide	ug/L	0.01	0.02	Not Detected	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Lindane (gamma-BHC)	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Methoxychlor	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	0.02	0.05	0.17	≤0.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NH3 (D)	Rayong
BOD (5 days at 20 Degree C) *	mg/L	-	2.0	2.3	≤2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD *	mg/L	-	25	40	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color *	Color unit	-	5	40	n	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 B	Rayong

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N.Banchongkit

Narumon Banchongkit
Supervisor

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-3
Sampled Date	Sep 14, 2023 11:20 AM
Sample Description	Surface Water
Location	SW3 : คลองปลากั้งช่วงไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0752943,1424553)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Cyanide as CN	mg/L	0.001	0.005	0.005	≤0.005	In-house method : STM 02-003 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - CN (C, E)	Rayong
Dissolved Oxygen *	mg/L	-	0.1	5.8	≥4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Flow rate *	m3/s	-	-	0.192	No Standard	Flow meter	Rayong
Formaldehyde *	mg/L	0.03	0.1	Not Detected	No Standard	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Nitrate as N *	mg/L	0.015	0.05	7.64	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong
Non-Carbonate Hardness as CaCO3 *	mg/L	-	1	536	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2320 B	Rayong
Odour *		-	-	Odourless	n	TIS, 257-2549	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 D	Bangkok
pH at 25 degree C		-	-	7.7	5.0-9.0	In-house method : STM 02-005 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Phenol *	mg/L	0.0005	0.001	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong

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Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-3
Sampled Date	Sep 14, 2023 11:20 AM
Sample Description	Surface Water
Location	SW3 : คลองปลากั้งช่วงไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0752943,1424553)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Residual Free Chlorine *	mg/L	-	0.1	<0.1	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Sulfide *	mg/L	-	0.5	<0.5	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (C, F)	Rayong
Temperature *	Degree C	-	-	29.5	n'	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	2240	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Hardness as CaCO3 *	mg/L	-	1	630	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2340 C	Rayong
Total Kjeldahl Nitrogen as N *	mg/L	-	1.0	5.6	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	7	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazettle, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 3)
n': Change from Natural condition not more than 3 degree C
n : Not Change from natural condition
Sampling By : Paramet Sattayakun , Kardbundit Kitisupavanit

Remark :
- LOD : Limit of Detection

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- [A] Analysis conducted by ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Branch, DSS Accreditation No. 0009.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Park Public Co., Ltd.
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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-4
Sampled Date	Sep 14, 2023 9:08 AM
Sample Description	Surface Water
Location	SW4 : คลองปลากั้งช่วงไหลบรรจบกับคลองใหญ่ (GPS 47P 0750114,1423246)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Aluminium	mg/L	0.003	0.005	0.07	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Arsenic	mg/L	0.0003	0.0005	0.003	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Barium	mg/L	0.0003	0.0005	0.09	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Copper	mg/L	0.0003	0.0005	0.001	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
[A] Iron	mg/L	0.003	0.005	0.29	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Lead	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

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Narumon Banchongkit
Supervisor

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-4
Sampled Date	Sep 14, 2023 9:08 AM
Sample Description	Surface Water
Location	SW4 : คลองปลากั้งช่วงไหลบรรจบกับคลองใหญ่ (GPS 47P 0750114,1423246)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Manganese	mg/L	0.0003	0.0005	0.18	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok
[A] Nickel	mg/L	0.0003	0.0005	0.005	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Selenium	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Silver	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	<0.01	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Zinc	mg/L	0.003	0.005	<0.005	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							

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Lot ID: 2397514
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Date Reported : Sep 23, 2023
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Sample Number	2397514-4
Sampled Date	Sep 14, 2023 9:08 AM
Sample Description	Surface Water
Location	SW4 : คลองปลากั้งช่วงไหลบรรจบกับคลองใหญ่ (GPS 47P 0750114,1423246)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Microbiological Testing							
[A] Fecal Coliform	MPN/100mL	-	-	79.0	≤4000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B, E	Bangkok
[A] Total Coliform	MPN/100mL	-	-	2400.0	≤20000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Pesticides - Organochlorine Group							
[A] 2,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 2,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 2,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 4,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 4,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-4
Sampled Date	Sep 14, 2023 9:08 AM
Sample Description	Surface Water
Location	SW4 : คลองปลากั้งช่วงไหลบรรจบกับคลองใหญ่ (GPS 47P 0750114,1423246)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] 4,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Aldrin	ug/L	0.01	0.02	Not Detected	≤0.10	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] alpha-BHC	ug/L	0.01	0.02	Not Detected	≤0.02	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] alpha-Chlordane	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] beta-BHC	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Chlordane	ug/L	0.02	0.04	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-4
Sampled Date	Sep 14, 2023 9:08 AM
Sample Description	Surface Water
Location	SW4 : คลองปลากั้งช่วงไหลบรรจบกับคลองใหญ่ (GPS 47P 0750114,1423246)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] DDT	ug/L	0.06	0.12	Not Detected	≤1	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] delta-BHC	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Dieldrin	ug/L	0.01	0.02	Not Detected	≤0.1	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endosulfan	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endosulfan I	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endosulfan II	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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P/O : RJN-029/66
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Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-4
Sampled Date	Sep 14, 2023 9:08 AM
Sample Description	Surface Water
Location	SW4 : คลองปลากั้งช่วงไหลบรรจบกับคลองใหญ่ (GPS 47P 0750114,1423246)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] Endrin	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endrin aldehyde	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endrin ketone	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] gamma-Chlordane	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Heptachlor	ug/L	0.01	0.02	Not Detected	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Heptachlor and Heptachlor epoxide *	ug/L	0.01	0.02	Not Detected	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-4
Sampled Date	Sep 14, 2023 9:08 AM
Sample Description	Surface Water
Location	SW4 : คลองปลากั้งช่วงไหลบรรจบกับคลองใหญ่ (GPS 47P 0750114,1423246)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] Heptachlor-Epoxide	ug/L	0.01	0.02	Not Detected	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Lindane (gamma-BHC)	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Methoxychlor	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	0.02	0.05	0.11	≤0.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NH3 (D)	Rayong
BOD (5 days at 20 Degree C) *	mg/L	-	2.0	<2.0	≤2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD *	mg/L	-	25	<25	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color *	Color unit	-	5	20	n	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 B	Rayong

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Lot ID: 2397514
Date Received : Sep 14, 2023
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Report Number : 2751181-1

Sample Number	2397514-4
Sampled Date	Sep 14, 2023 9:08 AM
Sample Description	Surface Water
Location	SW4 : คลองปลากั้งช่วงไหลบรรจบกับคลองใหญ่ (GPS 47P 0750114,1423246)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Cyanide as CN	mg/L	0.001	0.005	<0.005	≤0.005	In-house method : STM 02-003 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - CN (C, E)	Rayong
Dissolved Oxygen *	mg/L	-	0.1	4.6	≥4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Flow rate *	m3/s	-	-	0.000	No Standard	Flow meter	Rayong
Formaldehyde *	mg/L	0.03	0.1	Not Detected	No Standard	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Nitrate as N *	mg/L	0.015	0.05	1.11	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong
Non-Carbonate Hardness as CaCO3 *	mg/L	-	1	67	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2320 B	Rayong
Odour *		-	-	Odourless	n	TIS, 257-2549	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 D	Bangkok
pH at 25 degree C		-	-	7.6	5.0-9.0	In-house method : STM 02-005 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Phenol *	mg/L	0.0005	0.001	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong

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Analysis / Test Report

TESTING
No.0042

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

Sample Number	2397514-4
Sampled Date	Sep 14, 2023 9:08 AM
Sample Description	Surface Water
Location	SW4 : คลองปลากั้งช่วงไหลบรรจบกับคลองใหญ่ (GPS 47P 0750114,1423246)
Date Analysis Commenced	Sep 14, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Residual Free Chlorine *	mg/L	-	0.1	<0.1	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Sulfide *	mg/L	-	0.5	<0.5	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (C, F)	Rayong
Temperature *	Degree C	-	-	28.7	n'	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	404	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Hardness as CaCO3 *	mg/L	-	1	165	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2340 C	Rayong
Total Kjeldahl Nitrogen as N *	mg/L	-	1.0	4.4	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	<5	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazettle, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 3)
n': Change from Natural condition not more than 3 degree C
n : Not Change from natural condition
Sampling By : Paramet Sattayakun , Kardbundit Kitisupavanit

Remark :
- LOD : Limit of Detection

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Analysis / Test Report

TESTING
No.0042

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 2397514
Date Received : Sep 14, 2023
Date Reported : Sep 23, 2023
Report Number : 2751181-1

- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- [A] Analysis conducted by ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Branch, DSS Accreditation No. 0009.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136563
Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
Report Number : 2843411-1

Sample Number	23136563-1
Sampled Date	Dec 12, 2023 9:35 AM
Sample Description	Surface Water
Location	SW1 : คลองปลากั้งช่วงก่อนไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0754352,1425178)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Aluminium	mg/L	0.003	0.005	0.09	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Arsenic	mg/L	0.0003	0.0005	0.009	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Barium	mg/L	0.0003	0.0005	0.14	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Copper	mg/L	0.0003	0.0005	Not Detected	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
[A] Iron	mg/L	0.003	0.005	2.64	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

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Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136563
Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
Report Number : 2843411-1

Sample Number	23136563-1
Sampled Date	Dec 12, 2023 9:35 AM
Sample Description	Surface Water
Location	SW1 : คลองปลากั้งช่วงก่อนไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0754352,1425178)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Lead	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Manganese	mg/L	0.0003	0.0005	2.32	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok
[A] Nickel	mg/L	0.0003	0.0005	<0.0005	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Selenium	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Silver	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	<0.01	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

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Sample Number	23136563-1
Sampled Date	Dec 12, 2023 9:35 AM
Sample Description	Surface Water
Location	SW1 : คลองปลากั้งช่วงก่อนไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0754352,1425178)
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Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Zinc	mg/L	0.003	0.005	0.01	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
[A] Fecal Coliform	MPN/100mL	-	-	17.0	≤4000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B, E	Bangkok
[A] Total Coliform	MPN/100mL	-	-	490.0	≤20000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Pesticides - Organochlorine Group							
[A] 2,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 2,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 2,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] 4,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 4,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 4,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Aldrin	ug/L	0.01	0.02	Not Detected	≤0.10	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] alpha-BHC	ug/L	0.01	0.02	Not Detected	≤0.02	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] alpha-Chlordane	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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Sample Description	Surface Water
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Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] beta-BHC	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Chlordane	ug/L	0.02	0.04	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] DDT	ug/L	0.06	0.12	Not Detected	≤1	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] delta-BHC	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Dieldrin	ug/L	0.01	0.02	Not Detected	≤0.1	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endosulfan I	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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Sample Number	23136563-1
Sampled Date	Dec 12, 2023 9:35 AM
Sample Description	Surface Water
Location	SW1 : คลองปลากั้งช่วงก่อนไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0754352,1425178)
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Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] Endosulfan II	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endosulfan sulfate	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endrin	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endrin aldehyde	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endrin ketone	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] gamma-Chlordane	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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Lot ID: 23136563
Date Received : Dec 12, 2023
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Sample Number	23136563-1
Sampled Date	Dec 12, 2023 9:35 AM
Sample Description	Surface Water
Location	SW1 : คลองปลากั้งช่วงก่อนไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0754352,1425178)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] Heptachlor	ug/L	0.01	0.02	Not Detected	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Heptachlor and Heptachlor epoxide *	ug/L	0.01	0.02	Not Detected	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Heptachlor-Epoxide	ug/L	0.01	0.02	Not Detected	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Lindane (gamma-BHC)	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Methoxychlor	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	0.02	0.05	0.77	≤0.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NH3 (D)	Rayong

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Sample Number	23136563-1
Sampled Date	Dec 12, 2023 9:35 AM
Sample Description	Surface Water
Location	SW1 : คลองปลากั้งช่วงก่อนไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0754352,1425178)
Date Analysis Commenced	Dec 12, 2023
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Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2.0	<2.0	≤2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD *	mg/L	-	25	<25	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color *	Color unit	-	5	20	n	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 B	Rayong
Cyanide as CN	mg/L	0.001	0.005	0.005	≤0.005	In-house method : STM 02-003 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - CN (C, E)	Rayong
Dissolved Oxygen *	mg/L	-	0.1	5.0	≥4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Flow rate *	m3/s	-	-	0.013	No Standard	Flow meter	Rayong
Formaldehyde *	mg/L	0.03	0.1	Not Detected	No Standard	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Nitrate as N *	mg/L	0.015	0.05	Not Detected	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong
Non-Carbonate Hardness as CaCO3 *	mg/L	-	1	100	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2320 B	Rayong

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Sample Number	23136563-1
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Sample Description	Surface Water
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Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Odour *		-	-	Odourless	Non Objectionable	TIS, 257-2549	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 D	Bangkok
pH at 25 degree C		-	-	7.1	5.0-9.0	In-house method : STM 02-005 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Phenol *	mg/L	0.0005	0.001	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong
Residual Free Chlorine *	mg/L	-	0.1	<0.1	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Sulfide *	mg/L	-	0.5	<0.5	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (C, F)	Rayong
Temperature *	Degree C	-	-	26.3	n'	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	116	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Hardness as CaCO3 *	mg/L	-	1	173	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2340 C	Rayong

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Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Kjeldahl Nitrogen as N *	mg/L	-	1.0	1.4	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	6	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazettle, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 3)
n': Change from Natural condition not more than 3 degree C
n : Not Change from natural condition
Sampling By : Pitthaya Thongtaeng

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- [A] Analysis conducted by ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Branch, DSS Accreditation No. 0009.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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Narumon Banchongkit
Supervisor

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136563
Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
Report Number : 2843411-1

Sample Number	23136563-2
Sampled Date	Dec 12, 2023 9:50 AM
Sample Description	Surface Water
Location	SW2 : คลองปลากั้งบริเวณจุดระบายน้ำทิ้งของโครงการ (GPS 47P 0753479,1424676)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Aluminium	mg/L	0.003	0.005	0.03	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Arsenic	mg/L	0.0003	0.0005	0.003	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Barium	mg/L	0.0003	0.0005	0.11	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Copper	mg/L	0.0003	0.0005	<0.0005	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
[A] Iron	mg/L	0.003	0.005	1.37	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

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Date Received : Dec 12, 2023
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Report Number : 2843411-1

Sample Number	23136563-2
Sampled Date	Dec 12, 2023 9:50 AM
Sample Description	Surface Water
Location	SW2 : คลองปลากั้งบริเวณจุดระบายน้ำทิ้งของโครงการ (GPS 47P 0753479,1424676)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Lead	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Manganese	mg/L	0.0003	0.0005	0.70	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok
[A] Nickel	mg/L	0.0003	0.0005	0.0006	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Selenium	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Silver	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	<0.01	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Park Public Co., Ltd.
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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136563
Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
Report Number : 2843411-1

Sample Number	23136563-2
Sampled Date	Dec 12, 2023 9:50 AM
Sample Description	Surface Water
Location	SW2 : คลองปลากั้งบริเวณจุดระบายน้ำทิ้งของโครงการ (GPS 47P 0753479,1424676)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Zinc	mg/L	0.003	0.005	0.007	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
[A] Fecal Coliform	MPN/100mL	-	-	330.0	≤4000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B, E	Bangkok
[A] Total Coliform	MPN/100mL	-	-	490.0	≤20000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Pesticides - Organochlorine Group							
[A] 2,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 2,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 2,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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Lot ID: 23136563
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Sample Number	23136563-2
Sampled Date	Dec 12, 2023 9:50 AM
Sample Description	Surface Water
Location	SW2 : คลองปลากั้งบริเวณจุดระบายน้ำทิ้งของโครงการ (GPS 47P 0753479,1424676)
Date Analysis Commenced	Dec 12, 2023
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Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] 4,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 4,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 4,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Aldrin	ug/L	0.01	0.02	Not Detected	≤0.10	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] alpha-BHC	ug/L	0.01	0.02	Not Detected	≤0.02	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] alpha-Chlordane	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
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Sample Number	23136563-2
Sampled Date	Dec 12, 2023 9:50 AM
Sample Description	Surface Water
Location	SW2 : คลองปลากั้งบริเวณจุดระบายน้ำทิ้งของโครงการ (GPS 47P 0753479,1424676)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] beta-BHC	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Chlordane	ug/L	0.02	0.04	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] DDT	ug/L	0.06	0.12	Not Detected	≤1	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] delta-BHC	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Dieldrin	ug/L	0.01	0.02	Not Detected	≤0.1	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endosulfan I	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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Lot ID: 23136563
Date Received : Dec 12, 2023
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Report Number : 2843411-1

Sample Number	23136563-2
Sampled Date	Dec 12, 2023 9:50 AM
Sample Description	Surface Water
Location	SW2 : คลองปลากั้งบริเวณจุดระบายน้ำทิ้งของโครงการ (GPS 47P 0753479,1424676)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] Endosulfan II	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endosulfan sulfate	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endrin	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endrin aldehyde	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endrin ketone	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] gamma-Chlordane	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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Sample Number	23136563-2
Sampled Date	Dec 12, 2023 9:50 AM
Sample Description	Surface Water
Location	SW2 : คลองปลากั้งบริเวณจุดระบายน้ำทิ้งของโครงการ (GPS 47P 0753479,1424676)
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Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] Heptachlor	ug/L	0.01	0.02	Not Detected	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Heptachlor and Heptachlor epoxide *	ug/L	0.01	0.02	Not Detected	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Heptachlor-Epoxide	ug/L	0.01	0.02	Not Detected	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Lindane (gamma-BHC)	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Methoxychlor	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	0.02	0.05	0.73	≤0.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NH3 (D)	Rayong

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Sample Number	23136563-2
Sampled Date	Dec 12, 2023 9:50 AM
Sample Description	Surface Water
Location	SW2 : คลองปลากั้งบริเวณจุดระบายน้ำทิ้งของโครงการ (GPS 47P 0753479,1424676)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2.0	<2.0	≤2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD *	mg/L	-	25	<25	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color *	Color unit	-	5	5	n	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 B	Rayong
Cyanide as CN	mg/L	0.001	0.005	<0.005	≤0.005	In-house method : STM 02-003 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - CN (C, E)	Rayong
Dissolved Oxygen *	mg/L	-	0.1	7.1	≥4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Flow rate *	m3/s	-	-	0.007	No Standard	Flow meter	Rayong
Formaldehyde *	mg/L	0.03	0.1	Not Detected	No Standard	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Nitrate as N *	mg/L	0.015	0.05	1.01	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong
Non-Carbonate Hardness as CaCO3 *	mg/L	-	1	134	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2320 B	Rayong

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Sample Number	23136563-2
Sampled Date	Dec 12, 2023 9:50 AM
Sample Description	Surface Water
Location	SW2 : คลองปลากั้งบริเวณจุดระบายน้ำทิ้งของโครงการ (GPS 47P 0753479,1424676)
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Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Odour *		-	-	Odourless	n	TIS, 257-2549	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 D	Bangkok
pH at 25 degree C		-	-	7.0	5.0-9.0	In-house method : STM 02-005 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Phenol *	mg/L	0.0005	0.001	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong
Residual Free Chlorine *	mg/L	-	0.1	<0.1	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Sulfide *	mg/L	-	0.5	<0.5	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (C, F)	Rayong
Temperature *	Degree C	-	-	27.1	n'	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	220	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Hardness as CaCO3 *	mg/L	-	1	185	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2340 C	Rayong

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Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 23136563
Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
Report Number : 2843411-1

Sample Number	23136563-2
Sampled Date	Dec 12, 2023 9:50 AM
Sample Description	Surface Water
Location	SW2 : คลองปลากั้งบริเวณจุดระบายน้ำทิ้งของโครงการ (GPS 47P 0753479,1424676)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Kjeldahl Nitrogen as N *	mg/L	-	1.0	2.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	<5	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazettle, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 3)
n': Change from Natural condition not more than 3 degree C
n : Not Change from natural condition
Sampling By : Pitthaya Thongtaeng

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- [A] Analysis conducted by ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Branch, DSS Accreditation No. 0009.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136563
Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
Report Number : 2843411-1

Sample Number	23136563-3
Sampled Date	Dec 12, 2023 10:00 AM
Sample Description	Surface Water
Location	SW3 : คลองปลากั้งช่วงไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0752943,1424553)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Aluminium	mg/L	0.003	0.005	0.08	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Arsenic	mg/L	0.0003	0.0005	0.001	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Barium	mg/L	0.0003	0.0005	0.08	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Copper	mg/L	0.0003	0.0005	0.002	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
[A] Iron	mg/L	0.003	0.005	0.23	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

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3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136563
Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
Report Number : 2843411-1

Sample Number	23136563-3
Sampled Date	Dec 12, 2023 10:00 AM
Sample Description	Surface Water
Location	SW3 : คลองปลากั้งช่วงไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0752943,1424553)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Lead	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Manganese	mg/L	0.0003	0.0005	0.59	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok
[A] Nickel	mg/L	0.0003	0.0005	0.05	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Selenium	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Silver	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	<0.01	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136563
Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
Report Number : 2843411-1

Sample Number	23136563-3
Sampled Date	Dec 12, 2023 10:00 AM
Sample Description	Surface Water
Location	SW3 : คลองปลากั้งช่วงไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0752943,1424553)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Zinc	mg/L	0.003	0.005	0.02	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
[A] Fecal Coliform	MPN/100mL	-	-	1100.0	≤4000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B, E	Bangkok
[A] Total Coliform	MPN/100mL	-	-	7900.0	≤20000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Pesticides - Organochlorine Group							
[A] 2,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 2,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 2,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136563
Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
Report Number : 2843411-1

Sample Number	23136563-3
Sampled Date	Dec 12, 2023 10:00 AM
Sample Description	Surface Water
Location	SW3 : คลองปลากั้งช่วงไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0752943,1424553)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] 4,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 4,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 4,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Aldrin	ug/L	0.01	0.02	Not Detected	≤0.10	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] alpha-BHC	ug/L	0.01	0.02	Not Detected	≤0.02	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] alpha-Chlordane	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136563
Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
Report Number : 2843411-1

Sample Number	23136563-3
Sampled Date	Dec 12, 2023 10:00 AM
Sample Description	Surface Water
Location	SW3 : คลองปลากั้งช่วงไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0752943,1424553)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] beta-BHC	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Chlordane	ug/L	0.02	0.04	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] DDT	ug/L	0.06	0.12	Not Detected	≤1	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] delta-BHC	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Dieldrin	ug/L	0.01	0.02	Not Detected	≤0.1	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endosulfan I	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136563
Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
Report Number : 2843411-1

Sample Number	23136563-3
Sampled Date	Dec 12, 2023 10:00 AM
Sample Description	Surface Water
Location	SW3 : คลองปลากั้งช่วงไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0752943,1424553)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] Endosulfan II	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endosulfan sulfate	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endrin	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endrin aldehyde	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endrin ketone	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] gamma-Chlordane	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136563
Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
Report Number : 2843411-1

Sample Number	23136563-3
Sampled Date	Dec 12, 2023 10:00 AM
Sample Description	Surface Water
Location	SW3 : คลองปลากั้งช่วงไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0752943,1424553)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] Heptachlor	ug/L	0.01	0.02	Not Detected	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Heptachlor and Heptachlor epoxide *	ug/L	0.01	0.02	Not Detected	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Heptachlor-Epoxide	ug/L	0.01	0.02	Not Detected	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Lindane (gamma-BHC)	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Methoxychlor	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	0.02	0.05	0.17	≤0.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NH3 (D)	Rayong

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136563
Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
Report Number : 2843411-1

Sample Number	23136563-3
Sampled Date	Dec 12, 2023 10:00 AM
Sample Description	Surface Water
Location	SW3 : คลองปลากั้งช่วงไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0752943,1424553)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2.0	<2.0	≤2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD *	mg/L	-	25	39	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color *	Color unit	-	5	40	n	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 B	Rayong
Cyanide as CN	mg/L	0.001	0.005	0.005	≤0.005	In-house method : STM 02-003 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - CN (C, E)	Rayong
Dissolved Oxygen *	mg/L	-	0.1	6.0	≥4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Flow rate *	m3/s	-	-	0.070	No Standard	Flow meter	Rayong
Formaldehyde *	mg/L	0.03	0.1	Not Detected	No Standard	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Nitrate as N *	mg/L	0.015	0.05	19.8	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong
Non-Carbonate Hardness as CaCO3 *	mg/L	-	1	512	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2320 B	Rayong

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Narumon Banchongkit
Supervisor

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136563
Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
Report Number : 2843411-1

Sample Number	23136563-3
Sampled Date	Dec 12, 2023 10:00 AM
Sample Description	Surface Water
Location	SW3 : คลองปลากั้งช่วงไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0752943,1424553)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Odour *		-	-	Odourless	n	TIS, 257-2549	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 D	Bangkok
pH at 25 degree C		-	-	7.9	5.0-9.0	In-house method : STM 02-005 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Phenol *	mg/L	0.0005	0.001	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong
Residual Free Chlorine *	mg/L	-	0.1	<0.1	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Sulfide *	mg/L	-	0.5	<0.5	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (C, F)	Rayong
Temperature *	Degree C	-	-	29.0	n'	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	2080	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Hardness as CaCO3 *	mg/L	-	1	663	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2340 C	Rayong

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Narumon Banchongkit
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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location :

Lot ID: 23136563
Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
Report Number : 2843411-1

Sample Number	23136563-3
Sampled Date	Dec 12, 2023 10:00 AM
Sample Description	Surface Water
Location	SW3 : คลองปลากั้งช่วงไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0752943,1424553)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Kjeldahl Nitrogen as N *	mg/L	-	1.0	5.2	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	<5	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazettle, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 3)
n': Change from Natural condition not more than 3 degree C
n : Not Change from natural condition
Sampling By : Pitthaya Thongtaeng

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- [A] Analysis conducted by ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Branch, DSS Accreditation No. 0009.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136563
Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
Report Number : 2843411-1

Sample Number	23136563-4
Sampled Date	Dec 12, 2023 10:20 AM
Sample Description	Surface Water
Location	SW4 : คลองปลากั้งช่วงไหลบรรจบกับคลองใหญ่ (GPS 47P 0750114,1423246)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Aluminium	mg/L	0.003	0.005	0.16	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Arsenic	mg/L	0.0003	0.0005	0.003	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Barium	mg/L	0.0003	0.0005	0.06	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Copper	mg/L	0.0003	0.0005	0.0008	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
[A] Iron	mg/L	0.003	0.005	0.40	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

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Analysis / Test Report

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136563
Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
Report Number : 2843411-1

Sample Number	23136563-4
Sampled Date	Dec 12, 2023 10:20 AM
Sample Description	Surface Water
Location	SW4 : คลองปลากั้งช่วงไหลบรรจบกับคลองใหญ่ (GPS 47P 0750114,1423246)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Lead	mg/L	0.0003	0.0005	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Manganese	mg/L	0.0003	0.0005	0.16	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok
[A] Nickel	mg/L	0.0003	0.0005	0.002	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Selenium	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Silver	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	<0.01	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136563
Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
Report Number : 2843411-1

Sample Number	23136563-4
Sampled Date	Dec 12, 2023 10:20 AM
Sample Description	Surface Water
Location	SW4 : คลองปลากั้งช่วงไหลบรรจบกับคลองใหญ่ (GPS 47P 0750114,1423246)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Zinc	mg/L	0.003	0.005	Not Detected	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
[A] Fecal Coliform	MPN/100mL	-	-	110.0	≤4000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B, E	Bangkok
[A] Total Coliform	MPN/100mL	-	-	790.0	≤20000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Pesticides - Organochlorine Group							
[A] 2,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 2,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 2,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136563
Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
Report Number : 2843411-1

Sample Number	23136563-4
Sampled Date	Dec 12, 2023 10:20 AM
Sample Description	Surface Water
Location	SW4 : คลองปลากั้งช่วงไหลบรรจบกับคลองใหญ่ (GPS 47P 0750114,1423246)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] 4,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 4,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] 4,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Aldrin	ug/L	0.01	0.02	Not Detected	≤0.10	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] alpha-BHC	ug/L	0.01	0.02	Not Detected	≤0.02	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] alpha-Chlordane	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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Analysis / Test Report

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136563
Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
Report Number : 2843411-1

Sample Number	23136563-4
Sampled Date	Dec 12, 2023 10:20 AM
Sample Description	Surface Water
Location	SW4 : คลองปลากั้งช่วงไหลบรรจบกับคลองใหญ่ (GPS 47P 0750114,1423246)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] beta-BHC	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Chlordane	ug/L	0.02	0.04	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] DDT	ug/L	0.06	0.12	Not Detected	≤1	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] delta-BHC	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Dieldrin	ug/L	0.01	0.02	Not Detected	≤0.1	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endosulfan I	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136563
Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
Report Number : 2843411-1

Sample Number	23136563-4
Sampled Date	Dec 12, 2023 10:20 AM
Sample Description	Surface Water
Location	SW4 : คลองปลากั้งช่วงไหลบรรจบกับคลองใหญ่ (GPS 47P 0750114,1423246)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] Endosulfan II	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endosulfan sulfate	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endrin	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endrin aldehyde	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Endrin ketone	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] gamma-Chlordane	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

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3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136563
Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
Report Number : 2843411-1

Sample Number	23136563-4
Sampled Date	Dec 12, 2023 10:20 AM
Sample Description	Surface Water
Location	SW4 : คลองปลากั้งช่วงไหลบรรจบกับคลองใหญ่ (GPS 47P 0750114,1423246)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
[A] Heptachlor	ug/L	0.01	0.02	Not Detected	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Heptachlor and Heptachlor epoxide *	ug/L	0.01	0.02	Not Detected	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Heptachlor-Epoxide	ug/L	0.01	0.02	Not Detected	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Lindane (gamma-BHC)	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
[A] Methoxychlor	ug/L	0.01	0.02	Not Detected	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	0.02	0.05	0.10	≤0.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NH3 (D)	Rayong

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136563
Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
Report Number : 2843411-1

Sample Number	23136563-4
Sampled Date	Dec 12, 2023 10:20 AM
Sample Description	Surface Water
Location	SW4 : คลองปลากั้งช่วงไหลบรรจบกับคลองใหญ่ (GPS 47P 0750114,1423246)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2.0	<2.0	≤2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD *	mg/L	-	25	<25	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color *	Color unit	-	5	20	n	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 B	Rayong
Cyanide as CN	mg/L	0.001	0.005	<0.005	≤0.005	In-house method : STM 02-003 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - CN (C, E)	Rayong
Dissolved Oxygen *	mg/L	-	0.1	5.0	≥4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Flow rate *	m3/s	-	-	0.000	No Standard	Flow meter	Rayong
Formaldehyde *	mg/L	0.03	0.1	Not Detected	No Standard	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Nitrate as N *	mg/L	0.015	0.05	1.74	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong
Non-Carbonate Hardness as CaCO3 *	mg/L	-	1	73	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2320 B	Rayong

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Approved by

Narumon Banchongkit
Supervisor

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136563
Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
Report Number : 2843411-1

Sample Number	23136563-4
Sampled Date	Dec 12, 2023 10:20 AM
Sample Description	Surface Water
Location	SW4 : คลองปลากั้งช่วงไหลบรรจบกับคลองใหญ่ (GPS 47P 0750114,1423246)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Odour *		-	-	Odourless	n	TIS, 257-2549	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 D	Bangkok
pH at 25 degree C		-	-	7.4	5.0-9.0	In-house method : STM 02-005 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Phenol *	mg/L	0.0005	0.001	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong
Residual Free Chlorine *	mg/L	-	0.1	<0.1	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Sulfide *	mg/L	-	0.5	<0.5	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (C, F)	Rayong
Temperature *	Degree C	-	-	29.4	n'	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	206	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Hardness as CaCO3 *	mg/L	-	1	156	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2340 C	Rayong

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Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136563
Date Received : Dec 12, 2023
Date Reported : Dec 20, 2023
Report Number : 2843411-1

Sample Number	23136563-4
Sampled Date	Dec 12, 2023 10:20 AM
Sample Description	Surface Water
Location	SW4 : คลองปลากั้งช่วงไหลบรรจบกับคลองใหญ่ (GPS 47P 0750114,1423246)
Date Analysis Commenced	Dec 12, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles, ten plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Kjeldahl Nitrogen as N *	mg/L	-	1.0	1.3	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	5	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazettle, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 3)
n': Change from Natural condition not more than 3 degree C
n : Not Change from natural condition
Sampling By : Pitthaya Thongtaeng

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- [A] Analysis conducted by ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Branch, DSS Accreditation No. 0009.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

Approved by

Narumon Banchongkit
Supervisor

ภาคผนวก ฐ-3

คุณภาพตะกอนดินท้องน้ำ

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397517
Date Received : Sep 14, 2023
Date Reported : Jan 15, 2024
Report Number : 2885859-1

Sample Number	2397517-1
Sampled Date	Sep 14, 2023 9:50 AM
Sample Description	ตะกอนดิน
Location	SD1 : คลองปลากั้งช่วงก่อนไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0754352, 1425178)
Date Analysis Commenced	Sep 15, 2023
Condition of Sample	Packed in one plastic bag and one glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Chemical Testing							
Cyanide	mg/kg	-	0.2	<0.2	No Standard	United States Environmental Protection Agency, EPA Method 9013 and 9010 B	Bangkok
Metals Testing							
Aluminium	mg/kg	-	1.00	3958	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Arsenic	mg/kg	-	0.50	8.76	≤10	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Barium	mg/kg	-	1.00	14.3	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Cadmium	mg/kg	-	0.50	<0.16	≤0.16	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Copper	mg/kg	-	1.00	1.30	≤21.5	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Hexavalent Chromium	mg/kg	-	1.00	<1.00	No Standard	United States Environmental Protection Agency, EPA Method 3060A and 7196A	Bangkok
Iron	mg/kg	-	1.00	3040	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Lead	mg/kg	-	1.00	6.77	≤36	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Manganese	mg/kg	-	1.00	100	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Mercury	mg/kg	-	0.10	<0.10	≤0.2	United States Environmental Protection Agency, EPA Method 7473	Bangkok

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Approved by

Sawitree Noisangiam
Manager

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397517
Date Received : Sep 14, 2023
Date Reported : Jan 15, 2024
Report Number : 2885859-1

Sample Number	2397517-1
Sampled Date	Sep 14, 2023 9:50 AM
Sample Description	ตะกอนดิน
Location	SD1 : คลองปลากั้งช่วงก่อนไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0754352, 1425178)
Date Analysis Commenced	Sep 15, 2023
Condition of Sample	Packed in one plastic bag and one glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Nickel	mg/kg	-	1.00	<1.00	≤27.5	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Selenium	mg/kg	-	0.50	<0.50	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Silver	mg/kg	-	1.00	<1.00	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Trivalent Chromium	mg/kg	-	1.00	<1.00	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Zinc	mg/kg	-	1.00	4.07	≤80	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Physical Parameters							
Moisture	%	-	0.1	27.6	No Standard	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 G	Bangkok

Guideline : ประกาศกรมควบคุมมลพิษ เรื่อง เกณฑ์คุณภาพตะกอนดินในแหล่งน้ำผิวดินเพื่อคุ้มครองสัตว์หน้าดิน

Note : Analysis Results expressed on dry basis.

Sampling By : Kardbundit Kitisupavanit

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

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Sawitree Noisangiam
Manager

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397517
Date Received : Sep 14, 2023
Date Reported : Jan 15, 2024
Report Number : 2885859-1

Sample Number	2397517-2
Sampled Date	Sep 14, 2023 10:40 AM
Sample Description	ตะกอนดิน
Location	SD2 : คลองปลากั้งบริเวณจุดระบายน้ำทิ้งของโครงการ (GPS 47P 0753479, 1424676)
Date Analysis Commenced	Sep 15, 2023
Condition of Sample	Packed in one plastic bag and one glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Chemical Testing							
Cyanide	mg/kg	-	0.2	<0.2	No Standard	United States Environmental Protection Agency, EPA Method 9013 and 9010 B	Bangkok
Metals Testing							
Aluminium	mg/kg	-	1.00	2052	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Arsenic	mg/kg	-	0.50	3.75	≤10	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Barium	mg/kg	-	1.00	14.0	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Cadmium	mg/kg	-	0.50	<0.16	≤0.16	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Copper	mg/kg	-	1.00	2.35	≤21.5	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Hexavalent Chromium	mg/kg	-	1.00	<1.00	No Standard	United States Environmental Protection Agency, EPA Method 3060A and 7196A	Bangkok
Iron	mg/kg	-	1.00	2704	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Lead	mg/kg	-	1.00	5.66	≤36	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Manganese	mg/kg	-	1.00	104	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Mercury	mg/kg	-	0.10	<0.10	≤0.2	United States Environmental Protection Agency, EPA Method 7473	Bangkok

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Sawitree Noisangiam
Manager

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397517
Date Received : Sep 14, 2023
Date Reported : Jan 15, 2024
Report Number : 2885859-1

Sample Number	2397517-2
Sampled Date	Sep 14, 2023 10:40 AM
Sample Description	ตะกอนดิน
Location	SD2 : คลองปลากั้งบริเวณจุดระบายน้ำทิ้งของโครงการ (GPS 47P 0753479, 1424676)
Date Analysis Commenced	Sep 15, 2023
Condition of Sample	Packed in one plastic bag and one glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Nickel	mg/kg	-	1.00	<1.00	≤27.5	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Selenium	mg/kg	-	0.50	<0.50	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Silver	mg/kg	-	1.00	<1.00	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Trivalent Chromium	mg/kg	-	1.00	<1.00	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Zinc	mg/kg	-	1.00	14.9	≤80	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Physical Parameters							
Moisture	%	-	0.1	22.7	No Standard	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 G	Bangkok

Guideline : ประกาศกรมควบคุมมลพิษ เรื่อง เกณฑ์คุณภาพตะกอนดินในแหล่งน้ำผิวดินเพื่อคุ้มครองสัตว์หน้าดิน

Note : Analysis Results expressed on dry basis.

Sampling By : Kardbundit Kitisupavanit

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

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Sawitree Noisangiam
Manager

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397517
Date Received : Sep 14, 2023
Date Reported : Jan 15, 2024
Report Number : 2885859-1

Sample Number	2397517-3
Sampled Date	Sep 14, 2023 11:20 AM
Sample Description	ตะกอนดิน
Location	SD3 : คลองปลากั้งช่วงไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0752943, 1424553)
Date Analysis Commenced	Sep 15, 2023
Condition of Sample	Packed in one plastic bag and one glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Chemical Testing							
Cyanide	mg/kg	-	0.2	<0.2	No Standard	United States Environmental Protection Agency, EPA Method 9013 and 9010 B	Bangkok
Metals Testing							
Aluminium	mg/kg	-	1.00	1871	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Arsenic	mg/kg	-	0.50	3.56	≤10	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Barium	mg/kg	-	1.00	9.92	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Cadmium	mg/kg	-	0.50	<0.16	≤0.16	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Copper	mg/kg	-	1.00	1.27	≤21.5	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Hexavalent Chromium	mg/kg	-	1.00	<1.00	No Standard	United States Environmental Protection Agency, EPA Method 3060A and 7196A	Bangkok
Iron	mg/kg	-	1.00	2681	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Lead	mg/kg	-	1.00	4.51	≤36	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Manganese	mg/kg	-	1.00	122	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Mercury	mg/kg	-	0.10	<0.10	≤0.2	United States Environmental Protection Agency, EPA Method 7473	Bangkok

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Sawitree Noisangiam
Manager

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 2397517
Date Received : Sep 14, 2023
Date Reported : Jan 15, 2024
Report Number : 2885859-1

Sample Number	2397517-3
Sampled Date	Sep 14, 2023 11:20 AM
Sample Description	ตะกอนดิน
Location	SD3 : คลองปลากั้งช่วงไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0752943, 1424553)
Date Analysis Commenced	Sep 15, 2023
Condition of Sample	Packed in one plastic bag and one glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Nickel	mg/kg	-	1.00	1.81	≤27.5	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Selenium	mg/kg	-	0.50	<0.50	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Silver	mg/kg	-	1.00	<1.00	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Trivalent Chromium	mg/kg	-	1.00	<1.00	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Zinc	mg/kg	-	1.00	14.9	≤80	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Physical Parameters							
Moisture	%	-	0.1	28.7	No Standard	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 G	Bangkok

Guideline : ประกาศกรมควบคุมมลพิษ เรื่อง เกณฑ์คุณภาพตะกอนดินในแหล่งน้ำผิวดินเพื่อคุ้มครองสัตว์หน้าดิน

Note : Analysis Results expressed on dry basis.

Sampling By : Kardbundit Kitisupavanit

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

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Sawitree Noisangiam
Manager

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136564
Date Received : Dec 12, 2023
Date Reported : Jan 15, 2024
Report Number : 2843413-1

Sample Number	23136564-1
Sampled Date	Dec 12, 2023 9:25 AM
Sample Description	ตะกอนดิน
Location	SD1 : คลองปลากั้งช่วงก่อนไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0754352, 1425178)
Date Analysis Commenced	Dec 13, 2023
Condition of Sample	Packed in one plastic bag and one glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Chemical Testing							
Cyanide	mg/kg	-	0.2	<0.2	No Standard	United States Environmental Protection Agency, EPA Method 9013 and 9010 B	Bangkok
Metals Testing							
Aluminium	mg/kg	-	1.00	9355	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Arsenic	mg/kg	-	0.50	22.6	≤10	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Barium	mg/kg	-	1.00	38.9	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Cadmium	mg/kg	-	0.50	<0.16	≤0.16	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Copper	mg/kg	-	1.00	4.60	≤21.5	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Hexavalent Chromium	mg/kg	-	1.00	<1.00	No Standard	United States Environmental Protection Agency, EPA Method 3060A and 7196A	Bangkok
Iron	mg/kg	-	1.00	7360	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Lead	mg/kg	-	1.00	15.5	≤36	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Manganese	mg/kg	-	1.00	259	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Mercury	mg/kg	-	0.10	<0.10	≤0.2	United States Environmental Protection Agency, EPA Method 7473	Bangkok

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Approved by

Sawitree Noisangiam
Manager

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136564
Date Received : Dec 12, 2023
Date Reported : Jan 15, 2024
Report Number : 2843413-1

Sample Number	23136564-1
Sampled Date	Dec 12, 2023 9:25 AM
Sample Description	ตะกอนดิน
Location	SD1 : คลองปลากั้งช่วงก่อนไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0754352, 1425178)
Date Analysis Commenced	Dec 13, 2023
Condition of Sample	Packed in one plastic bag and one glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Nickel	mg/kg	-	1.00	2.58	≤27.5	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Selenium	mg/kg	-	0.50	<0.50	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Silver	mg/kg	-	1.00	<1.00	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Trivalent Chromium	mg/kg	-	1.00	<1.00	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Zinc	mg/kg	-	1.00	15.6	≤80	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Physical Parameters							
Moisture	%	-	0.1	29.6	No Standard	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 G	Bangkok

Guideline : ประกาศกรมควบคุมมลพิษ เรื่อง เกณฑ์คุณภาพตะกอนดินในแหล่งน้ำผิวดินเพื่อคุ้มครองสัตว์หน้าดิน

Note : Analysis Results expressed on dry basis.

Sampling By : Pitthaya Thongtaeng

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

Approved by

Sawitree Noisangiam
Manager

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136564
Date Received : Dec 12, 2023
Date Reported : Jan 15, 2024
Report Number : 2843413-1

Sample Number	23136564-2
Sampled Date	Dec 12, 2023 9:45 AM
Sample Description	ตะกอนดิน
Location	SD2 : คลองปลากั้งบริเวณจุดระบายน้ำทิ้งของโครงการ (GPS 47P 0753479, 1424676)
Date Analysis Commenced	Dec 13, 2023
Condition of Sample	Packed in one plastic bag and one glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Chemical Testing							
Cyanide	mg/kg	-	0.2	<0.2	No Standard	United States Environmental Protection Agency, EPA Method 9013 and 9010 B	Bangkok
Metals Testing							
Aluminium	mg/kg	-	1.00	1223	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Arsenic	mg/kg	-	0.50	4.81	≤10	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Barium	mg/kg	-	1.00	11.1	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Cadmium	mg/kg	-	0.50	<0.16	≤0.16	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Copper	mg/kg	-	1.00	<1.00	≤21.5	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Hexavalent Chromium	mg/kg	-	1.00	<1.00	No Standard	United States Environmental Protection Agency, EPA Method 3060A and 7196A	Bangkok
Iron	mg/kg	-	1.00	2492	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Lead	mg/kg	-	1.00	4.38	≤36	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Manganese	mg/kg	-	1.00	323	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Mercury	mg/kg	-	0.10	<0.10	≤0.2	United States Environmental Protection Agency, EPA Method 7473	Bangkok

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

Approved by

Sawitree Noisangiam
Manager

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136564
Date Received : Dec 12, 2023
Date Reported : Jan 15, 2024
Report Number : 2843413-1

Sample Number	23136564-2
Sampled Date	Dec 12, 2023 9:45 AM
Sample Description	ตะกอนดิน
Location	SD2 : คลองปลากั้งบริเวณจุดระบายน้ำทิ้งของโครงการ (GPS 47P 0753479, 1424676)
Date Analysis Commenced	Dec 13, 2023
Condition of Sample	Packed in one plastic bag and one glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Nickel	mg/kg	-	1.00	<1.00	≤27.5	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Selenium	mg/kg	-	0.50	<0.50	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Silver	mg/kg	-	1.00	<1.00	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Trivalent Chromium	mg/kg	-	1.00	<1.00	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Zinc	mg/kg	-	1.00	3.77	≤80	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Physical Parameters							
Moisture	%	-	0.1	24.4	No Standard	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 G	Bangkok

Guideline : ประกาศกรมควบคุมมลพิษ เรื่อง เกณฑ์คุณภาพตะกอนดินในแหล่งน้ำผิวดินเพื่อคุ้มครองสัตว์หน้าดิน

Note : Analysis Results expressed on dry basis.

Sampling By : Pitthaya Thongtaeng

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

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Approved by

Sawitree Noisangiam
Manager

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136564
Date Received : Dec 12, 2023
Date Reported : Jan 15, 2024
Report Number : 2843413-1

Sample Number	23136564-3
Sampled Date	Dec 12, 2023 10:05 AM
Sample Description	ตะกอนดิน
Location	SD3 : คลองปลากั้งช่วงไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0752943, 1424553)
Date Analysis Commenced	Dec 13, 2023
Condition of Sample	Packed in one plastic bag and one glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Chemical Testing							
Cyanide	mg/kg	-	0.2	<0.2	No Standard	United States Environmental Protection Agency, EPA Method 9013 and 9010 B	Bangkok
Metals Testing							
Aluminium	mg/kg	-	1.00	1507	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Arsenic	mg/kg	-	0.50	5.35	≤10	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Barium	mg/kg	-	1.00	10.4	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Cadmium	mg/kg	-	0.50	<0.16	≤0.16	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Copper	mg/kg	-	1.00	1.11	≤21.5	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Hexavalent Chromium	mg/kg	-	1.00	<1.00	No Standard	United States Environmental Protection Agency, EPA Method 3060A and 7196A	Bangkok
Iron	mg/kg	-	1.00	2072	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Lead	mg/kg	-	1.00	5.12	≤36	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Manganese	mg/kg	-	1.00	578	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Mercury	mg/kg	-	0.10	<0.10	≤0.2	United States Environmental Protection Agency, EPA Method 7473	Bangkok

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Sawitree Noisangiam
Manager

Analysis / Test Report

Client : Rojana Industrial Park Public Co., Ltd.
3/7 Moo 2, Rojana Industrial Park (Rayong), Banbung-Bankhai Rd., Nongbua, Bankhai, Rayong Thailand 21120
P/O : RJN-029/66
Project Name : Rayong Bankhai
Project Location:

Lot ID: 23136564
Date Received : Dec 12, 2023
Date Reported : Jan 15, 2024
Report Number : 2843413-1

Sample Number	23136564-3
Sampled Date	Dec 12, 2023 10:05 AM
Sample Description	ตะกอนดิน
Location	SD3 : คลองปลากั้งช่วงไหลผ่านจุดระบายน้ำทิ้งของโครงการ 500 เมตร (GPS 47P 0752943, 1424553)
Date Analysis Commenced	Dec 13, 2023
Condition of Sample	Packed in one plastic bag and one glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Nickel	mg/kg	-	1.00	5.50	≤27.5	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Selenium	mg/kg	-	0.50	<0.50	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Silver	mg/kg	-	1.00	<1.00	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Trivalent Chromium	mg/kg	-	1.00	<1.00	No Standard	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Zinc	mg/kg	-	1.00	23.7	≤80	United States Environmental Protection Agency, EPA Method 3050B and 6010D	Bangkok
Physical Parameters							
Moisture	%	-	0.1	21.5	No Standard	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 G	Bangkok

Guideline : ประกาศกรมควบคุมมลพิษ เรื่อง เกณฑ์คุณภาพตะกอนดินในแหล่งน้ำผิวดินเพื่อคุ้มครองสัตว์หน้าดิน

Note : Analysis Results expressed on dry basis.

Sampling By : Pitthaya Thongtaeng

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

Approved by

Sawitree Noisangiam
Manager

ภาคผนวก ฐ-4

คุณภาพน้ำทิ้ง

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2372263
Date Received : Jul 05, 2023
Date Reported : Jul 12, 2023
Report Number : 2715531-1

Sample Number	2372263-1
Sampled Date	Jul 05, 2023 1:50 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Jul 05, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	22.7	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	153	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	117	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	114	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Cyanide as CN *	mg/L	0.001	0.005	0.010	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-CN (C, E)	Rayong
Formaldehyde	mg/L	0.03	0.1	Not Detected	≤1.0	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
pH at 25 degree C *		-	-	8.0	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Phenol	mg/L	0.005	0.01	<0.010	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong

Technical Management
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2372263
Date Received : Jul 05, 2023
Date Reported : Jul 12, 2023
Report Number : 2715531-1

Sample Number	2372263-1
Sampled Date	Jul 05, 2023 1:50 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Jul 05, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Sulfide *	mg/L	-	0.5	<0.5	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (C, F)	Rayong
Temperature *	Degree C	-	-	32.1	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1952	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	70.4	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	90	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Standard of Rojana Industrial park (Rayong) No.2/2559 and No.1/2560, Criteria of wastewater drainage from the factory to central wastewater treatment plant.
Sampling By : Narunat thammasaro ทะเบียนเลขที่ ว-323-จ-9477 , Samart Khumphlee ทะเบียนเลขที่ ว-204-จ-7830

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING
No.0009

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2372263
Date Received : Jul 05, 2023
Date Reported : Jul 12, 2023
Report Number : 2715531-2

Sample Number	2372263-1
Sampled Date	Jul 05, 2023 1:50 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Jul 06, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/L	0.0003	0.0005	0.005	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.10	≤1.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	0.002	≤0.03	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.01	≤2.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
Lead	mg/L	0.0003	0.0005	0.003	≤0.20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Manganese	mg/L	0.0003	0.0005	1.97	≤5.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury *	mg/L	0.0001	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3112	Bangkok

Technical Management
Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ว-204-จ-4710

Approved by
Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0009

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2372263
Date Received : Jul 05, 2023
Date Reported : Jul 12, 2023
Report Number : 2715531-2

Sample Number	2372263-1
Sampled Date	Jul 05, 2023 1:50 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Jul 06, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Nickel	mg/L	0.0003	0.0005	0.07	≤1.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Selenium	mg/L	0.0003	0.0005	Not Detected	≤0.02	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	0.02	≤0.75	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	1.14	≤5.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Water Testing							
Oil & Grease *	mg/L	-	3	3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 D	Bangkok

Guideline : Standard of Rojana Industrial park (Rayong) No.2/2559 and No.1/2560, Criteria of wastewater drainage from the factory to central wastewater treatment plant.
Sampling By : Narunat thammasaro ทะเบียนเลขที่ ว-323-จ-9477 , Samart Khumphlee ทะเบียนเลขที่ ว-204-จ-7830

Remark :
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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management
Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ว-204-จ-4710

Approved by
Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2372263
Date Received : Jul 05, 2023
Date Reported : Jul 13, 2023
Report Number : 2715531-3

Sample Number	2372263-1
Sampled Date	Jul 05, 2023 1:50 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Jul 06, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Aluminium	mg/L	0.003	0.005	1.65	≤5.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Iron	mg/L	0.003	0.005	11.6	≤10.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Silver	mg/L	0.0003	0.0005	Not Detected	≤1.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
[A] Fecal Coliform	MPN/100mL	-	-	790000.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B, E	Bangkok
[A] Total Coliform	MPN/100mL	-	-	2400000.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	0.02	0.05	42.0	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NH3 (D)	Rayong
Chloride as Cl *	mg/L	0.5	1	797	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Fluoride	mg/L	0.05	0.2	0.5	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-F (C)	Rayong

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Approved by

Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2372263
Date Received : Jul 05, 2023
Date Reported : Jul 13, 2023
Report Number : 2715531-3

Sample Number	2372263-1
Sampled Date	Jul 05, 2023 1:50 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Jul 06, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Nitrate as N *	mg/L	0.015	0.05	1.90	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong

Guideline : Standard of Rojana Industrial park (Rayong) No.2/2559 and No.1/2560, Criteria of wastewater drainage from the factory to central wastewater treatment plant.
Sampling By : Narunat thammasaro , Samart Khumphlee

Remark :
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- [A] Analysis conducted by ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Branch, DSS Accreditation No. 0009.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2372263
Date Received : Jul 05, 2023
Date Reported : Jul 12, 2023
Report Number : 2715532-1

Sample Number	2372263-2
Sampled Date	Jul 05, 2023 2:10 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Jul 05, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	3.9	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	51	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	66	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	63	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Cyanide as CN *	mg/L	0.001	0.005	0.006	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-CN (C, E)	Rayong
Formaldehyde	mg/L	0.03	0.1	Not Detected	≤1.0	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
pH at 25 degree C *		-	-	8.2	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Phenol	mg/L	0.005	0.01	Not Detected	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong

Technical Management
Narumon Banchongkit
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ทะเบียนเลขที่ ว-323-จ-9445

Approved by
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2372263
Date Received : Jul 05, 2023
Date Reported : Jul 12, 2023
Report Number : 2715532-1

Sample Number	2372263-2
Sampled Date	Jul 05, 2023 2:10 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Jul 05, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Sulfide *	mg/L	-	0.5	<0.5	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (C, F)	Rayong
Temperature *	Degree C	-	-	31.2	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	2116	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	11.7	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	11	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Sampling By : Narunat thammasaro ทะเบียนเลขที่ ว-323-จ-9477 , Samart Khumphlee ทะเบียนเลขที่ ว-204-จ-7830

Remark :
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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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Technical Management

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING
No.0009

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2372263
Date Received : Jul 05, 2023
Date Reported : Jul 12, 2023
Report Number : 2715532-2

Sample Number	2372263-2
Sampled Date	Jul 05, 2023 2:10 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Jul 06, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/L	0.0003	0.0005	0.001	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.08	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.03	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.0010	≤2.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
Lead	mg/L	0.0003	0.0005	Not Detected	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Manganese	mg/L	0.0003	0.0005	1.09	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury *	mg/L	0.0001	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3112	Bangkok

Technical Management
Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ว-204-จ-4710

Approved by
Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0009

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2372263
Date Received : Jul 05, 2023
Date Reported : Jul 12, 2023
Report Number : 2715532-2

Sample Number	2372263-2
Sampled Date	Jul 05, 2023 2:10 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Jul 06, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Nickel	mg/L	0.0003	0.0005	0.07	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Selenium	mg/L	0.0003	0.0005	Not Detected	≤0.02	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	<0.01	≤0.75	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	0.04	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Water Testing							
Oil & Grease *	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 D	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Sampling By : Narunat thammasaro ทะเบียนเลขที่ ว-323-จ-9477 , Samart Khumphlee ทะเบียนเลขที่ ว-204-จ-7830

Remark :
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Technical Management
Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ว-204-จ-4710

Approved by
Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2372263
Date Received : Jul 05, 2023
Date Reported : Jul 13, 2023
Report Number : 2715532-3

Sample Number	2372263-2
Sampled Date	Jul 05, 2023 2:10 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Jul 06, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Aluminium	mg/L	0.003	0.005	0.15		Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Iron	mg/L	0.003	0.005	0.13	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Silver	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
[A] Fecal Coliform	MPN/100mL	-	-	330.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B, E	Bangkok
[A] Total Coliform	MPN/100mL	-	-	490.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	0.02	0.05	9.87	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NH3 (D)	Rayong
Chloride as Cl *	mg/L	0.5	1	862	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Dissolved Oxygen *	mg/L	-	0.1	7.8	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong

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Approved by

Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2372263
Date Received : Jul 05, 2023
Date Reported : Jul 13, 2023
Report Number : 2715532-3

Sample Number	2372263-2
Sampled Date	Jul 05, 2023 2:10 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Jul 06, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Fluoride	mg/L	0.05	0.2	0.7	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-F (C)	Rayong
Nitrate as N *	mg/L	0.015	0.05	29.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong

Guideline :

Sampling By : Narunat thammasaro , Samart Khumphlee

Remark :
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- [A] Analysis conducted by ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Branch, DSS Accreditation No. 0009.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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Approved by

Narumon Banchongkit
Supervisor

Analysis / Test Report

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location : WWTP#2

Lot ID: 2372263
Date Received : Jul 05, 2023
Date Reported : Jul 12, 2023
Report Number : 2715533-1

Sample Number	2372263-3
Sampled Date	Jul 05, 2023 1:55 PM
Sample Description	Wastewater
Location	Aeration (บ่อA)
Date Analysis Commenced	Jul 06, 2023
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
Mixed Liqour Suspended Solids	mg/L	-	5	4110	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong
Sludge Volume Index	mL/g	-	5	51	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2170 D	Rayong
SV30	mL/L	-	2	210	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2170 C	Rayong

Sampling By : Narunat thammasaro , Samart Khumphlee

Remark :
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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

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Approved by

Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2380814
Date Received : Aug 02, 2023
Date Reported : Aug 09, 2023
Report Number : 2740858-1

Sample Number	2380814-1
Sampled Date	Aug 02, 2023 3:10 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Aug 02, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	46.1	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	214	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	145	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	143	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Cyanide as CN *	mg/L	0.001	0.005	0.011	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-CN (C, E)	Rayong
Formaldehyde	mg/L	0.03	0.1	<0.1	≤1.0	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
pH at 25 degree C *		-	-	7.6	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Phenol	mg/L	0.005	0.01	0.01	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong

Technical Management

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2380814
Date Received : Aug 02, 2023
Date Reported : Aug 09, 2023
Report Number : 2740858-1

Sample Number	2380814-1
Sampled Date	Aug 02, 2023 3:10 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Aug 02, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Sulfide *	mg/L	-	0.5	<0.5	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (C, F)	Rayong
Temperature *	Degree C	-	-	30.7	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	2000	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	69.8	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	108	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Standard of Rojana Industrial park (Rayong) No.2/2559 and No.1/2560, Criteria of wastewater drainage from the factory to central wastewater treatment plant.
Sampling By : Narunat thammasaro ทะเบียนเลขที ว-323-จ-9477 , Panupong Manit ทะเบียนเลขที ว-204-จ-8600

Remark :
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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING
No.0009

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2380814
Date Received : Aug 02, 2023
Date Reported : Aug 09, 2023
Report Number : 2740858-2

Sample Number	2380814-1
Sampled Date	Aug 02, 2023 3:10 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Aug 03, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/L	0.0003	0.0005	0.005	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.12	≤1.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	0.002	≤0.03	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.02	≤2.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
Lead	mg/L	0.0003	0.0005	0.002	≤0.20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Manganese	mg/L	0.0003	0.0005	1.96	≤5.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury *	mg/L	0.0001	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3112	Bangkok

Technical Management
Sawitree Noisangiam
Manager
ทะเบียนเลขที่ ว-204-จ-4709

Approved by
Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0009

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2380814
Date Received : Aug 02, 2023
Date Reported : Aug 09, 2023
Report Number : 2740858-2

Sample Number	2380814-1
Sampled Date	Aug 02, 2023 3:10 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Aug 03, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Nickel	mg/L	0.0003	0.0005	0.12	≤1.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Selenium	mg/L	0.0003	0.0005	Not Detected	≤0.02	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	0.04	≤0.75	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	1.80	≤5.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Water Testing							
Oil & Grease *	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 D	Bangkok

Guideline : Standard of Rojana Industrial park (Rayong) No.2/2559 and No.1/2560, Criteria of wastewater drainage from the factory to central wastewater treatment plant.
Sampling By : Narunat thammasaro ทะเบียนเลขที่ ว-323-จ-9477 , Panupong Manit ทะเบียนเลขที่ ว-204-จ-8600

Remark :
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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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Technical Management
Sawitree Noisangiam
Manager
ทะเบียนเลขที่ ว-204-จ-4709

Approved by
Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2380814
Date Received : Aug 02, 2023
Date Reported : Aug 09, 2023
Report Number : 2740858-3

Sample Number	2380814-1
Sampled Date	Aug 02, 2023 3:10 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Aug 02, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Aluminium	mg/L	0.003	0.005	1.28	≤5.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Iron	mg/L	0.003	0.005	22.0	≤10.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Silver	mg/L	0.0003	0.0005	Not Detected	≤1.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
[A] Fecal Coliform	MPN/100mL	-	-	54000000.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B, E	Bangkok
[A] Total Coliform	MPN/100mL	-	-	>160000000	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	0.02	0.05	42.0	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NH3 (D)	Rayong
Chloride as Cl *	mg/L	0.5	1	671	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Fluoride	mg/L	0.05	0.2	0.5	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-F (C)	Rayong

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Approved by

Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2380814
Date Received : Aug 02, 2023
Date Reported : Aug 09, 2023
Report Number : 2740858-3

Sample Number	2380814-1
Sampled Date	Aug 02, 2023 3:10 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Aug 02, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Nitrate as N *	mg/L	0.015	0.05	0.95	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong

Guideline : Standard of Rojana Industrial park (Rayong) No.2/2559 and No.1/2560, Criteria of wastewater drainage from the factory to central wastewater treatment plant.
Sampling By : Narunat thammasaro , Panupong Manit

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- [A] Analysis conducted by ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Branch, DSS Accreditation No. 0009.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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Approved by

Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2380814
Date Received : Aug 02, 2023
Date Reported : Aug 09, 2023
Report Number : 2740859-1

Sample Number	2380814-2
Sampled Date	Aug 02, 2023 3:25 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Aug 02, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle, one BOD bottle and ten plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	3.9	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	45	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	57	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	54	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Cyanide as CN *	mg/L	0.001	0.005	0.008	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-CN (C, E)	Rayong
Formaldehyde	mg/L	0.03	0.1	Not Detected	≤1.0	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
pH at 25 degree C *		-	-	8.0	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Phenol	mg/L	0.005	0.01	<0.010	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong

Technical Management
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2380814
Date Received : Aug 02, 2023
Date Reported : Aug 09, 2023
Report Number : 2740859-1

Sample Number	2380814-2
Sampled Date	Aug 02, 2023 3:25 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Aug 02, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle, one BOD bottle and ten plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Sulfide *	mg/L	-	0.5	<0.5	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (C, F)	Rayong
Temperature *	Degree C	-	-	31.1	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	2180	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	3.9	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	6	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Sampling By : Narunat thammasaro ทะเบียนเลขที่ ว-323-จ-9477 , Panupong Manit ทะเบียนเลขที่ ว-204-จ-8600

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING
No.0009

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2380814
Date Received : Aug 02, 2023
Date Reported : Aug 09, 2023
Report Number : 2740859-2

Sample Number	2380814-2
Sampled Date	Aug 02, 2023 3:25 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Aug 03, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle, one BOD bottle and ten plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/L	0.0003	0.0005	0.001	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.08	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.03	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.001	≤2.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
Lead	mg/L	0.0003	0.0005	Not Detected	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Manganese	mg/L	0.0003	0.0005	1.19	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3112	Bangkok

Technical Management
Sawitree Noisangiam
Manager
ทะเบียนเลขที่ ว-204-จ-4709

Approved by
Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0009

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2380814
Date Received : Aug 02, 2023
Date Reported : Aug 09, 2023
Report Number : 2740859-2

Sample Number	2380814-2
Sampled Date	Aug 02, 2023 3:25 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Aug 03, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle, one BOD bottle and ten plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Nickel	mg/L	0.0003	0.0005	0.06	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Selenium	mg/L	0.0003	0.0005	Not Detected	≤0.02	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	<0.01	≤0.75	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	0.11	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Water Testing							
Oil & Grease *	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 D	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Sampling By : Narunat thammasaro ทะเบียนเลขที่ ว-323-จ-9477 , Panupong Manit ทะเบียนเลขที่ ว-204-จ-8600

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management
Sawitree Noisangiam
Manager
ทะเบียนเลขที่ ว-204-จ-4709

Approved by
Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2380814
Date Received : Aug 02, 2023
Date Reported : Aug 09, 2023
Report Number : 2740859-3

Sample Number	2380814-2
Sampled Date	Aug 02, 2023 3:25 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Aug 02, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle, one BOD bottle and ten plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Aluminium	mg/L	0.003	0.005	0.09	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Iron	mg/L	0.003	0.005	0.07	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Silver	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
[A] Fecal Coliform	MPN/100mL	-	-	130.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B, E	Bangkok
[A] Total Coliform	MPN/100mL	-	-	240.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	0.02	0.05	3.28	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NH3 (D)	Rayong
Chloride as Cl *	mg/L	0.5	1	707	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Dissolved Oxygen *	mg/L	-	0.1	6.7	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong

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Approved by

Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2380814
Date Received : Aug 02, 2023
Date Reported : Aug 09, 2023
Report Number : 2740859-3

Sample Number	2380814-2
Sampled Date	Aug 02, 2023 3:25 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Aug 02, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle, one BOD bottle and ten plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Fluoride	mg/L	0.05	0.2	0.8	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-F (C)	Rayong
Nitrate as N *	mg/L	0.015	0.05	16.3	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Sampling By : Narunat thammasaro , Panupong Manit

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- [A] Analysis conducted by ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Branch, DSS Accreditation No. 0009.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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Approved by

Narumon Banchongkit
Supervisor

Analysis / Test Report

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location : WWTP#2

Lot ID: 2380814
Date Received : Aug 02, 2023
Date Reported : Aug 09, 2023
Report Number : 2740860-1

Sample Number	2380814-3
Sampled Date	Aug 02, 2023 3:20 PM
Sample Description	Wastewater
Location	Aeration (บ่อA)
Date Analysis Commenced	Aug 03, 2023
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
Mixed Liqour Suspended Solids	mg/L	-	5	5150	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong
Sludge Volume Index	mL/g	-	5	50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2170 D	Rayong
SV30	mL/L	-	2	260	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2170 C	Rayong

Sampling By : Narunat thammasaro , Panupong Manit

Remark :
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Approved by

Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2397568
Date Received : Sep 06, 2023
Date Reported : Sep 13, 2023
Report Number : 2775085-1

Sample Number	2397568-1
Sampled Date	Sep 06, 2023 2:30 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Sep 06, 2023
Condition of Sample	Contained in one amber glass bottle, two glass vials and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	14.6	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	202	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	138	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	136	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Cyanide as CN *	mg/L	0.001	0.005	0.008	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-CN (C, E)	Rayong
Formaldehyde	mg/L	0.03	0.1	<0.1	≤1.0	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
pH at 25 degree C *		-	-	8.0	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Phenol	mg/L	0.005	0.01	Not Detected	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong

Technical Management
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2397568
Date Received : Sep 06, 2023
Date Reported : Sep 13, 2023
Report Number : 2775085-1

Sample Number	2397568-1
Sampled Date	Sep 06, 2023 2:30 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Sep 06, 2023
Condition of Sample	Contained in one amber glass bottle, two glass vials and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Sulfide *	mg/L	-	0.5	<0.5	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (C, F)	Rayong
Temperature *	Degree C	-	-	31.2	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	2776	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	36.7	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	93	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Standard of Rojana Industrial park (Rayong) No.2/2559 and No.1/2560, Criteria of wastewater drainage from the factory to central wastewater treatment plant.
Sampling By : Narunat thammasaro ทะเบียนเลขที่ ว-323-จ-9477 , Samart Khumphlee ทะเบียนเลขที่ ว-204-จ-7830

Remark :
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- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING
No.0009

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2397568
Date Received : Sep 06, 2023
Date Reported : Sep 13, 2023
Report Number : 2775085-2

Sample Number	2397568-1
Sampled Date	Sep 06, 2023 2:30 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Sep 08, 2023
Condition of Sample	Contained in one amber glass bottle, two glass vials and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/L	0.0003	0.0005	0.005	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.11	≤1.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	0.002	≤0.03	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.01	≤2.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
Lead	mg/L	0.0003	0.0005	0.004	≤0.20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Manganese	mg/L	0.0003	0.0005	2.20	≤5.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury *	mg/L	0.0001	0.0005	<0.0005	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3112	Bangkok

Technical Management

Siriluk Puengpang
Section Head
ทะเบียนเลขที่ ว-204-จ-4720

Approved by

Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0009

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2397568
Date Received : Sep 06, 2023
Date Reported : Sep 13, 2023
Report Number : 2775085-2

Sample Number	2397568-1
Sampled Date	Sep 06, 2023 2:30 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Sep 08, 2023
Condition of Sample	Contained in one amber glass bottle, two glass vials and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Nickel	mg/L	0.0003	0.0005	0.08	≤1.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Selenium	mg/L	0.0003	0.0005	<0.0005	≤0.02	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	0.03	≤0.75	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	1.96	≤5.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Water Testing							
Oil & Grease *	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 D	Bangkok

Guideline : Standard of Rojana Industrial park (Rayong) No.2/2559 and No.1/2560, Criteria of wastewater drainage from the factory to central wastewater treatment plant.
Sampling By : Narunat thammasaro ทะเบียนเลขที่ ว-323-จ-9477 , Samart Khumphlee ทะเบียนเลขที่ ว-204-จ-7830

Remark :
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Technical Management
Siriluk Puengpang
Section Head
ทะเบียนเลขที่ ว-204-จ-4720

Approved by
Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2397568
Date Received : Sep 06, 2023
Date Reported : Sep 14, 2023
Report Number : 2775085-3

Sample Number	2397568-1
Sampled Date	Sep 06, 2023 2:30 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Sep 07, 2023
Condition of Sample	Contained in one amber glass bottle, two glass vials and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Aluminium	mg/L	0.003	0.005	1.78	≤5.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Iron	mg/L	0.003	0.005	20.6	≤10.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Silver	mg/L	0.0003	0.0005	Not Detected	≤1.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
[A] Fecal Coliform	MPN/100mL	-	-	130000.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B, E	Bangkok
[A] Total Coliform	MPN/100mL	-	-	240000.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	0.02	0.05	15.5	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NH3 (D)	Rayong
Chloride as Cl *	mg/L	0.5	1	1156	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Fluoride	mg/L	0.05	0.2	0.4	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-F (C)	Rayong

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Approved by

Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2397568
Date Received : Sep 06, 2023
Date Reported : Sep 14, 2023
Report Number : 2775085-3

Sample Number	2397568-1
Sampled Date	Sep 06, 2023 2:30 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Sep 07, 2023
Condition of Sample	Contained in one amber glass bottle, two glass vials and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Nitrate as N *	mg/L	0.015	0.05	3.15	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong

Guideline : Standard of Rojana Industrial park (Rayong) No.2/2559 and No.1/2560, Criteria of wastewater drainage from the factory to central wastewater treatment plant.
Sampling By : Narunat thammasaro , Samart Khumphlee

Remark :
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- [A] Analysis conducted by ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Branch, DSS Accreditation No. 0009.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2397568
Date Received : Sep 06, 2023
Date Reported : Sep 13, 2023
Report Number : 2775086-1

Sample Number	2397568-2
Sampled Date	Sep 06, 2023 2:40 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Sep 06, 2023
Condition of Sample	Contained in one BOD bottle, one amber glass bottle, two glass vials and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	2.6	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	53	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	59	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	57	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Cyanide as CN *	mg/L	0.001	0.005	0.005	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-CN (C, E)	Rayong
Formaldehyde	mg/L	0.03	0.1	Not Detected	≤1.0	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
pH at 25 degree C *		-	-	8.1	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Phenol	mg/L	0.005	0.01	Not Detected	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong

Technical Management

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2397568
Date Received : Sep 06, 2023
Date Reported : Sep 13, 2023
Report Number : 2775086-1

Sample Number	2397568-2
Sampled Date	Sep 06, 2023 2:40 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Sep 06, 2023
Condition of Sample	Contained in one BOD bottle, one amber glass bottle, two glass vials and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Sulfide *	mg/L	-	0.5	<0.5	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (C, F)	Rayong
Temperature *	Degree C	-	-	31.6	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	2540	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	1.4	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	8	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Sampling By : Narunat thammasaro ทะเบียนเลขที่ ว-323-จ-9477 , Samart Khumphlee ทะเบียนเลขที่ ว-204-จ-7830

Remark :
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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
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Technical Management

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING
No.0009

Lot ID: 2397568

Date Received : Sep 06, 2023
Date Reported : Sep 13, 2023
Report Number : 2775086-2

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Sample Number	2397568-2
Sampled Date	Sep 06, 2023 2:40 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Sep 08, 2023
Condition of Sample	Contained in one BOD bottle, one amber glass bottle, two glass vials and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/L	0.0003	0.0005	0.0008	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.09	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.03	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.0008	≤2.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
Lead	mg/L	0.0003	0.0005	Not Detected	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Manganese	mg/L	0.0003	0.0005	1.06	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury *	mg/L	0.0001	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3112	Bangkok

Technical Management

Siriluk Puengpang
Section Head
ทะเบียนเลขที่ ว-204-จ-4720

Approved by

Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0009

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2397568
Date Received : Sep 06, 2023
Date Reported : Sep 13, 2023
Report Number : 2775086-2

Sample Number	2397568-2
Sampled Date	Sep 06, 2023 2:40 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Sep 08, 2023
Condition of Sample	Contained in one BOD bottle, one amber glass bottle, two glass vials and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Nickel	mg/L	0.0003	0.0005	0.07	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Selenium	mg/L	0.0003	0.0005	Not Detected	≤0.02	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	<0.01	≤0.75	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	0.13	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Water Testing							
Oil & Grease *	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 D	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Sampling By : Narunat thammasaro ทะเบียนเลขที่ ว-323-จ-9477 , Samart Khumphlee ทะเบียนเลขที่ ว-204-จ-7830

Remark :
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Technical Management
Siriluk Puengpang
Section Head
ทะเบียนเลขที่ ว-204-จ-4720

Approved by
Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2397568
Date Received : Sep 06, 2023
Date Reported : Sep 14, 2023
Report Number : 2775086-3

Sample Number	2397568-2
Sampled Date	Sep 06, 2023 2:40 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Sep 07, 2023
Condition of Sample	Contained in one BOD bottle, one amber glass bottle, two glass vials and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Aluminium	mg/L	0.003	0.005	0.07	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Iron	mg/L	0.003	0.005	0.08	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Silver	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
[A] Fecal Coliform	MPN/100mL	-	-	33.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B, E	Bangkok
[A] Total Coliform	MPN/100mL	-	-	79.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	0.02	0.05	0.79	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NH3 (D)	Rayong
Chloride as Cl *	mg/L	0.5	1	1036	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Dissolved Oxygen *	mg/L	-	0.1	7.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong

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Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
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P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 2397568
Date Received : Sep 06, 2023
Date Reported : Sep 14, 2023
Report Number : 2775086-3

Sample Number	2397568-2
Sampled Date	Sep 06, 2023 2:40 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Sep 07, 2023
Condition of Sample	Contained in one BOD bottle, one amber glass bottle, two glass vials and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Fluoride	mg/L	0.05	0.2	0.6	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-F (C)	Rayong
Nitrate as N *	mg/L	0.015	0.05	15.7	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Sampling By : Narunat thammasaro , Samart Khumphlee

Remark :
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- [A] Analysis conducted by ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Branch, DSS Accreditation No. 0009.
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Analysis / Test Report

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location : WWTP#2

Lot ID: 2397568
Date Received : Sep 06, 2023
Date Reported : Sep 13, 2023
Report Number : 2775087-1

Sample Number	2397568-3
Sampled Date	Sep 06, 2023 2:20 PM
Sample Description	Wastewater
Location	Aeration (บ่อA)
Date Analysis Commenced	Sep 07, 2023
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
Mixed Liqour Suspended Solids	mg/L	-	5	3030	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong
Sludge Volume Index	mL/g	-	5	73	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2170 D	Rayong
SV30	mL/L	-	2	220	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2170 C	Rayong

Sampling By : Narunat thammasaro , Samart Khumphlee

Remark :
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Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23115309
Date Received : Oct 04, 2023
Date Reported : Oct 11, 2023
Report Number : 2803541-1

Sample Number	23115309-1
Sampled Date	Oct 04, 2023 3:00 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Oct 04, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	24.1	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	170	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	139	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	138	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Cyanide as CN *	mg/L	0.001	0.005	0.006	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-CN (C, E)	Rayong
Formaldehyde	mg/L	0.03	0.1	Not Detected	≤1.0	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
pH at 25 degree C *		-	-	7.5	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Phenol	mg/L	0.005	0.01	Not Detected	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong

Technical Management
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23115309
Date Received : Oct 04, 2023
Date Reported : Oct 11, 2023
Report Number : 2803541-1

Sample Number	23115309-1
Sampled Date	Oct 04, 2023 3:00 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Oct 04, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Sulfide *	mg/L	-	0.5	<0.5	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (C, F)	Rayong
Temperature *	Degree C	-	-	29.9	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1808	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	24.8	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	136	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Standard of Rojana Industrial park (Rayong) No.2/2559 and No.1/2560, Criteria of wastewater drainage from the factory to central wastewater treatment plant.
Sampling By : Narunat thammasaro ทะเบียนเลขที่ ว-323-จ-9477 , Panupong Manit ทะเบียนเลขที่ ว-204-จ-8600

Remark :
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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING
No.0009

Lot ID: 23115309

Date Received : Oct 04, 2023
Date Reported : Oct 11, 2023
Report Number : 2803541-2

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Sample Number	23115309-1
Sampled Date	Oct 04, 2023 3:00 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Oct 05, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/L	0.0003	0.0005	0.007	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.11	≤1.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	0.005	≤0.03	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.03	≤2.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
Lead	mg/L	0.0003	0.0005	0.006	≤0.20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Manganese	mg/L	0.0003	0.0005	1.73	≤5.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury *	mg/L	0.0001	0.0005	<0.0005	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3112	Bangkok

Technical Management

Sawitree Noisangiam
Manager
ทะเบียนเลขที่ ว-204-จ-4709

Approved by

Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0009

Lot ID: 23115309

Date Received : Oct 04, 2023
Date Reported : Oct 11, 2023
Report Number : 2803541-2

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Sample Number	23115309-1
Sampled Date	Oct 04, 2023 3:00 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Oct 05, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Nickel	mg/L	0.0003	0.0005	0.09	≤1.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Selenium	mg/L	0.0003	0.0005	0.0006	≤0.02	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	0.05	≤0.75	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	1.24	≤5.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Water Testing							
Oil & Grease *	mg/L	-	3	3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 D	Bangkok

Guideline : Standard of Rojana Industrial park (Rayong) No.2/2559 and No.1/2560, Criteria of wastewater drainage from the factory to central wastewater treatment plant.
Sampling By : Narunat thammasaro ทะเบียนเลขที่ ว-323-จ-9477 , Panupong Manit ทะเบียนเลขที่ ว-204-จ-8600

Remark :
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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

Sawitree Noisangiam
Manager
ทะเบียนเลขที่ ว-204-จ-4709

Approved by

Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23115309
Date Received : Oct 04, 2023
Date Reported : Oct 12, 2023
Report Number : 2803541-3

Sample Number	23115309-1
Sampled Date	Oct 04, 2023 3:00 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Oct 05, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Aluminium	mg/L	0.003	0.005	3.50	≤5.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Iron	mg/L	0.003	0.005	19.9	≤10.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Silver	mg/L	0.0003	0.0005	Not Detected	≤1.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
[A] Fecal Coliform	MPN/100mL	-	-	170000.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B, E	Bangkok
[A] Total Coliform	MPN/100mL	-	-	330000.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	0.02	0.05	18.5	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NH3 (D)	Rayong
Chloride as Cl *	mg/L	0.5	1	568	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Fluoride	mg/L	0.05	0.2	0.3	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-F (C)	Rayong

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Approved by

Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23115309
Date Received : Oct 04, 2023
Date Reported : Oct 12, 2023
Report Number : 2803541-3

Sample Number	23115309-1
Sampled Date	Oct 04, 2023 3:00 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Oct 05, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Nitrate as N *	mg/L	0.015	0.05	11.3	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong

Guideline : Standard of Rojana Industrial park (Rayong) No.2/2559 and No.1/2560, Criteria of wastewater drainage from the factory to central wastewater treatment plant.
Sampling By : Narunat thammasaro , Panupong Manit

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- [A] Analysis conducted by ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Branch, DSS Accreditation No. 0009.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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Approved by

Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23115309
Date Received : Oct 04, 2023
Date Reported : Oct 11, 2023
Report Number : 2803542-1

Sample Number	23115309-2
Sampled Date	Oct 04, 2023 3:10 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Oct 04, 2023
Condition of Sample	Contained in two glass vials, one BOD bottle, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	3.3	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	46	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	61	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	59	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Cyanide as CN *	mg/L	0.001	0.005	0.005	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-CN (C, E)	Rayong
Formaldehyde	mg/L	0.03	0.1	Not Detected	≤1.0	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
pH at 25 degree C *		-	-	8.0	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Phenol	mg/L	0.005	0.01	Not Detected	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong

Technical Management
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23115309
Date Received : Oct 04, 2023
Date Reported : Oct 11, 2023
Report Number : 2803542-1

Sample Number	23115309-2
Sampled Date	Oct 04, 2023 3:10 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Oct 04, 2023
Condition of Sample	Contained in two glass vials, one BOD bottle, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Sulfide *	mg/L	-	0.5	<0.5	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (C, F)	Rayong
Temperature *	Degree C	-	-	30.6	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	2556	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	3.0	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	8	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Sampling By : Narunat thammasaro ทะเบียนเลขที่ ว-323-จ-9477 , Panupong Manit ทะเบียนเลขที่ ว-204-จ-8600

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING
No.0009

Lot ID: 23115309

Date Received : Oct 04, 2023
Date Reported : Oct 11, 2023
Report Number : 2803542-2

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Sample Number	23115309-2
Sampled Date	Oct 04, 2023 3:10 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Oct 05, 2023
Condition of Sample	Contained in two glass vials, one BOD bottle, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/L	0.0003	0.0005	0.001	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.08	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.03	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.002	≤2.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
Lead	mg/L	0.0003	0.0005	<0.0005	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Manganese	mg/L	0.0003	0.0005	0.97	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury *	mg/L	0.0001	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3112	Bangkok

Technical Management

Sawitree Noisangiam
Manager
ทะเบียนเลขที่ ว-204-จ-4709

Approved by

Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0009

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23115309
Date Received : Oct 04, 2023
Date Reported : Oct 11, 2023
Report Number : 2803542-2

Sample Number	23115309-2
Sampled Date	Oct 04, 2023 3:10 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Oct 05, 2023
Condition of Sample	Contained in two glass vials, one BOD bottle, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Nickel	mg/L	0.0003	0.0005	0.07	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Selenium	mg/L	0.0003	0.0005	<0.0005	≤0.02	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	<0.01	≤0.75	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	0.05	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Water Testing							
Oil & Grease *	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 D	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Sampling By : Narunat thammasaro ทะเบียนเลขที่ ว-323-จ-9477 , Panupong Manit ทะเบียนเลขที่ ว-204-จ-8600

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management
Sawitree Noisangiam
Manager
ทะเบียนเลขที่ ว-204-จ-4709

Approved by
Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23115309
Date Received : Oct 04, 2023
Date Reported : Oct 12, 2023
Report Number : 2803542-3

Sample Number	23115309-2
Sampled Date	Oct 04, 2023 3:10 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Oct 05, 2023
Condition of Sample	Contained in two glass vials, one BOD bottle, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Aluminium	mg/L	0.003	0.005	0.16	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Iron	mg/L	0.003	0.005	0.16	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Silver	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
[A] Fecal Coliform	MPN/100mL	-	-	700.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B, E	Bangkok
[A] Total Coliform	MPN/100mL	-	-	3300.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	0.02	0.05	0.10	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NH3 (D)	Rayong
Chloride as Cl *	mg/L	0.5	1	836	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Dissolved Oxygen *	mg/L	-	0.1	5.1	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong

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Approved by

Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23115309
Date Received : Oct 04, 2023
Date Reported : Oct 12, 2023
Report Number : 2803542-3

Sample Number	23115309-2
Sampled Date	Oct 04, 2023 3:10 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Oct 05, 2023
Condition of Sample	Contained in two glass vials, one BOD bottle, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Fluoride	mg/L	0.05	0.2	0.5	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-F (C)	Rayong
Nitrate as N *	mg/L	0.015	0.05	15.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Sampling By : Narunat thammasaro , Panupong Manit

Remark :
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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- [A] Analysis conducted by ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Branch, DSS Accreditation No. 0009.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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Narumon Banchongkit
Supervisor

Analysis / Test Report

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location : WWTP#2

Lot ID: 23115309
Date Received : Oct 04, 2023
Date Reported : Oct 11, 2023
Report Number : 2803543-1

Sample Number	23115309-3
Sampled Date	Oct 04, 2023 2:50 PM
Sample Description	Wastewater
Location	Aeration (บ่อA)
Date Analysis Commenced	Oct 05, 2023
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
Mixed Liqour Suspended Solids	mg/L	-	5	3570	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong
Sludge Volume Index	mL/g	-	5	53	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2170 D	Rayong
SV30	mL/L	-	2	190	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2170 C	Rayong

Sampling By : Narunat thammasaro , Panupong Manit

Remark :
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Approved by

Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Lot ID: 23127065

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310

P/O :

Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)

Project Location: WWTP#2

Date Received : Nov 08, 2023
Date Reported : Nov 15, 2023
Report Number : 2834114-1

Sample Number	23127065-1
Sampled Date	Nov 08, 2023 3:25 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Nov 08, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	15.6	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	220	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	211	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	209	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Cyanide as CN *	mg/L	0.001	0.005	0.012	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-CN (C, E)	Rayong
Formaldehyde	mg/L	0.03	0.1	Not Detected	≤1.0	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
pH at 25 degree C *		-	-	7.9	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Phenol	mg/L	0.005	0.01	<0.010	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong

Technical Management

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23127065
Date Received : Nov 08, 2023
Date Reported : Nov 15, 2023
Report Number : 2834114-1

Sample Number	23127065-1
Sampled Date	Nov 08, 2023 3:25 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Nov 08, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Sulfide *	mg/L	-	0.5	<0.5	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (C, F)	Rayong
Temperature *	Degree C	-	-	29.0	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1950	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	18.9	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	91	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Standard of Rojana Industrial park (Rayong) No.2/2559 and No.1/2560, Criteria of wastewater drainage from the factory to central wastewater treatment plant.
Sampling By : Narunat thammasaro ทะเบียนเลขที ว-323-จ-9477 , Panupong Manit ทะเบียนเลขที ว-204-จ-8600

Remark :
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Technical Management
Narumon Banchongkit
Supervisor
ทะเบียนเลขที ว-323-จ-9445

Approved by
Dej Changchon
Senior Manager
ทะเบียนเลขที ว-323-ค-9442

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Analysis / Test Report

TESTING
No.0009

Lot ID: 23127065

Date Received : Nov 08, 2023
Date Reported : Nov 15, 2023
Report Number : 2834114-2

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Sample Number	23127065-1
Sampled Date	Nov 08, 2023 3:25 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Nov 09, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/L	0.0003	0.0005	0.005	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.08	≤1.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	0.002	≤0.03	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.009	≤2.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
Lead	mg/L	0.0003	0.0005	0.003	≤0.20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Manganese	mg/L	0.0003	0.0005	1.66	≤5.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury *	mg/L	0.0001	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3112	Bangkok

Technical Management

Sawitree Noisangiam
Manager
ทะเบียนเลขที่ ว-204-จ-4709

Approved by

Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0009

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23127065
Date Received : Nov 08, 2023
Date Reported : Nov 15, 2023
Report Number : 2834114-2

Sample Number	23127065-1
Sampled Date	Nov 08, 2023 3:25 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Nov 09, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Nickel	mg/L	0.0003	0.0005	0.07	≤1.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Selenium	mg/L	0.0003	0.0005	Not Detected	≤0.02	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	0.02	≤0.75	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	0.40	≤5.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Water Testing							
Oil & Grease *	mg/L	-	3	5	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 D	Bangkok

Guideline : Standard of Rojana Industrial park (Rayong) No.2/2559 and No.1/2560, Criteria of wastewater drainage from the factory to central wastewater treatment plant.
Sampling By : Narunat thammasaro ทะเบียนเลขที่ ว-323-จ-9477 , Panupong Manit ทะเบียนเลขที่ ว-204-จ-8600

Remark :
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Technical Management
Sawitree Noisangiam
Manager
ทะเบียนเลขที่ ว-204-จ-4709

Approved by
Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23127065
Date Received : Nov 08, 2023
Date Reported : Nov 16, 2023
Report Number : 2834114-3

Sample Number	23127065-1
Sampled Date	Nov 08, 2023 3:25 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Nov 09, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Aluminium	mg/L	0.003	0.005	1.67	≤5.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Iron	mg/L	0.003	0.005	23.6	≤10.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Silver	mg/L	0.0003	0.0005	Not Detected	≤1.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
[A] Fecal Coliform	MPN/100mL	-	-	79000.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B, E	Bangkok
[A] Total Coliform	MPN/100mL	-	-	330000.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	0.02	0.05	14.6	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NH3 (D)	Rayong
Chloride as Cl *	mg/L	0.5	1	706	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Fluoride	mg/L	0.05	0.2	0.3	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-F (C)	Rayong

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Approved by

Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23127065
Date Received : Nov 08, 2023
Date Reported : Nov 16, 2023
Report Number : 2834114-3

Sample Number	23127065-1
Sampled Date	Nov 08, 2023 3:25 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Nov 09, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Nitrate as N *	mg/L	0.015	0.05	26.5	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong

Guideline : Standard of Rojana Industrial park (Rayong) No.2/2559 and No.1/2560, Criteria of wastewater drainage from the factory to central wastewater treatment plant.
Sampling By : Narunat thammasaro , Panupong Manit

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- [A] Analysis conducted by ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Branch, DSS Accreditation No. 0009.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23127065
Date Received : Nov 08, 2023
Date Reported : Nov 15, 2023
Report Number : 2834115-1

Sample Number	23127065-2
Sampled Date	Nov 08, 2023 3:50 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Nov 08, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle, one BOD bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	3.0	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	49	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	71	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	69	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Cyanide as CN *	mg/L	0.001	0.005	0.007	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-CN (C, E)	Rayong
Formaldehyde	mg/L	0.03	0.1	Not Detected	≤1.0	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Nitrate as N *	mg/L	0.015	0.05	22.5	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong
pH at 25 degree C *		-	-	8.3	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong

Technical Management

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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Life Sciences www.alsglobal.com
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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23127065
Date Received : Nov 08, 2023
Date Reported : Nov 15, 2023
Report Number : 2834115-1

Sample Number	23127065-2
Sampled Date	Nov 08, 2023 3:50 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Nov 08, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle, one BOD bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Phenol	mg/L	0.005	0.01	Not Detected	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Sulfide *	mg/L	-	0.5	<0.5	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (C, F)	Rayong
Temperature *	Degree C	-	-	30.2	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	2270	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	4.1	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	9	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Sampling By : Narunat thammasaro ทะเบียนเลขที่ ว-323-จ-9477 , Panupong Manit ทะเบียนเลขที่ ว-204-จ-8600

Remark :
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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Technical Management

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23127065
Date Received : Nov 08, 2023
Date Reported : Nov 15, 2023
Report Number : 2834115-1

- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING
No.0009

Lot ID: 23127065

Date Received : Nov 08, 2023
Date Reported : Nov 15, 2023
Report Number : 2834115-2

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Sample Number	23127065-2
Sampled Date	Nov 08, 2023 3:50 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Nov 09, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle, one BOD bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/L	0.0003	0.0005	0.0008	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.06	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.03	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.002	≤2.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Lead	mg/L	0.0003	0.0005	Not Detected	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Manganese	mg/L	0.0003	0.0005	0.63	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury *	mg/L	0.0001	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3112	Bangkok

Technical Management

Sawitree Noisangiam
Manager
ทะเบียนเลขที่ ว-204-จ-4709

Approved by

Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0009

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23127065
Date Received : Nov 08, 2023
Date Reported : Nov 15, 2023
Report Number : 2834115-2

Sample Number	23127065-2
Sampled Date	Nov 08, 2023 3:50 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Nov 09, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle, one BOD bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Nickel	mg/L	0.0003	0.0005	0.06	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Selenium	mg/L	0.0003	0.0005	Not Detected	≤0.02	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	<0.01	≤0.75	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	0.01	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Water Testing							
Oil & Grease *	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 D	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Sampling By : Narunat thammasaro ทะเบียนเลขที่ ว-323-จ-9477 , Panupong Manit ทะเบียนเลขที่ ว-204-จ-8600

Remark :
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Technical Management
Sawitree Noisangiam
Manager
ทะเบียนเลขที่ ว-204-จ-4709

Approved by
Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23127065
Date Received : Nov 08, 2023
Date Reported : Nov 16, 2023
Report Number : 2834115-3

Sample Number	23127065-2
Sampled Date	Nov 08, 2023 3:50 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Nov 09, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle, one BOD bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Aluminium	mg/L	0.003	0.005	0.32	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
[A] Iron	mg/L	0.003	0.005	0.14	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
[A] Silver	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
[A] Fecal Coliform	MPN/100mL	-	-	1300.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B, E	Bangkok
[A] Total Coliform	MPN/100mL	-	-	1700.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	0.02	0.05	0.11	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NH3 (D)	Rayong
Chloride as Cl *	mg/L	0.5	1	882	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong

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Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23127065
Date Received : Nov 08, 2023
Date Reported : Nov 16, 2023
Report Number : 2834115-3

Sample Number	23127065-2
Sampled Date	Nov 08, 2023 3:50 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Nov 09, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle, one BOD bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Dissolved Oxygen *	mg/L	-	0.1	7.1	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Fluoride	mg/L	0.05	0.2	0.5	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-F (C)	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Sampling By : Narunat thammasaro , Panupong Manit

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- [A] Analysis conducted by ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Branch, DSS Accreditation No. 0009.
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Narumon Banchongkit
Supervisor

Analysis / Test Report

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location : WWTP#2

Lot ID: 23127065
Date Received : Nov 08, 2023
Date Reported : Nov 15, 2023
Report Number : 2834116-1

Sample Number	23127065-3
Sampled Date	Nov 08, 2023 3:20 PM
Sample Description	Wastewater
Location	Aeration (บ่อA)
Date Analysis Commenced	Nov 09, 2023
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
Mixed Liqour Suspended Solids	mg/L	-	5	2680	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong
Sludge Volume Index	mL/g	-	5	52	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2170 D	Rayong
SV30	mL/L	-	2	140	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2170 C	Rayong

Sampling By : Narunat thammasaro , Panupong Manit

Remark :
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Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Lot ID: 23136598

Date Received : Dec 06, 2023
Date Reported : Dec 13, 2023
Report Number : 2861709-1

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Sample Number	23136598-1
Sampled Date	Dec 06, 2023 3:20 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Dec 06, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	13.4	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	187	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	155	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	152	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Cyanide as CN *	mg/L	0.001	0.005	0.011	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-CN (C, E)	Rayong
Formaldehyde	mg/L	0.03	0.1	<0.1	≤1.0	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
pH at 25 degree C *		-	-	7.8	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Phenol	mg/L	0.005	0.01	Not Detected	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong

Technical Management

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23136598
Date Received : Dec 06, 2023
Date Reported : Dec 13, 2023
Report Number : 2861709-1

Sample Number	23136598-1
Sampled Date	Dec 06, 2023 3:20 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Dec 06, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Sulfide *	mg/L	-	0.5	<0.5		Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (C, F)	Rayong
Temperature *	Degree C	-	-	30.2	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	2114	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	19.5	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	88	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Standard of Rojana Industrial park (Rayong) No.2/2559 and No.1/2560, Criteria of wastewater drainage from the factory to central wastewater treatment plant.
Sampling By : Narunat thammasaro ทะเบียนเลขที ว-323-จ-9477 , Panupong Manit ทะเบียนเลขที ว-204-จ-8600

Remark :
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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management
Narumon Banchongkit
Supervisor
ทะเบียนเลขที ว-323-จ-9445

Approved by
Dej Changchon
Senior Manager
ทะเบียนเลขที ว-323-ค-9442

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Analysis / Test Report

TESTING
No.0009

Lot ID: 23136598

Date Received : Dec 06, 2023
Date Reported : Dec 13, 2023
Report Number : 2861709-2

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Sample Number	23136598-1
Sampled Date	Dec 06, 2023 3:20 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Dec 07, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Aluminium	mg/L	0.003	0.005	2.88	≤5.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Arsenic	mg/L	0.0003	0.0005	0.007	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.10	≤1.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	0.004	≤0.03	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.02	≤2.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
Lead	mg/L	0.0003	0.0005	0.006	≤0.20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Technical Management

Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ว-204-จ-4710

Approved by

Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0009

Lot ID: 23136598

Date Received : Dec 06, 2023
Date Reported : Dec 13, 2023
Report Number : 2861709-2

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Sample Number	23136598-1
Sampled Date	Dec 06, 2023 3:20 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Dec 07, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Manganese	mg/L	0.0003	0.0005	2.15	≤5.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury *	mg/L	0.0001	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3112	Bangkok
Nickel	mg/L	0.0003	0.0005	0.11	≤1.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Selenium	mg/L	0.0003	0.0005	Not Detected	≤0.02	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Silver	mg/L	0.0003	0.0005	Not Detected	≤1.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	0.04	≤0.75	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	1.18	≤5.00	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Water Testing							

Technical Management

Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ว-204-จ-4710

Approved by

Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0009

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23136598
Date Received : Dec 06, 2023
Date Reported : Dec 13, 2023
Report Number : 2861709-2

Sample Number	23136598-1
Sampled Date	Dec 06, 2023 3:20 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Dec 07, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Oil & Grease *	mg/L	-	3	3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 D	Bangkok

Guideline : Standard of Rojana Industrial park (Rayong) No.2/2559 and No.1/2560, Criteria of wastewater drainage from the factory to central wastewater treatment plant.
Sampling By : Narunat thammasaro ทะเบียนเลขที ว-323-จ-9477 , Panupong Manit ทะเบียนเลขที ว-204-จ-8600

Remark :
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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ว-204-จ-4710

Approved by

Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23136598
Date Received : Dec 06, 2023
Date Reported : Dec 13, 2023
Report Number : 2861709-3

Sample Number	23136598-1
Sampled Date	Dec 06, 2023 3:20 PM
Sample Description	Wastewater
Location	Collecting Tank
Date Analysis Commenced	Dec 07, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Iron	mg/L	0.003	0.005	17.8	≤10.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
[A] Fecal Coliform	MPN/100mL	-	-	24000.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B, E	Bangkok
[A] Total Coliform	MPN/100mL	-	-	33000.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	0.02	0.05	11.0	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NH3 (D)	Rayong
Chloride as Cl *	mg/L	0.5	1	754	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Fluoride	mg/L	0.05	0.2	0.5	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-F (C)	Rayong
Nitrate as N *	mg/L	0.015	0.05	14.9	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong

Guideline : Standard of Rojana Industrial park (Rayong) No.2/2559 and No.1/2560, Criteria of wastewater drainage from the factory to central wastewater treatment plant.
Sampling By : Narunat thammasaro , Panupong Manit

Remark :
- LOD : Limit of Detection

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Approved by

Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310

P/O :

Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)

Project Location: WWTP#2

Lot ID: 23136598

Date Received : Dec 06, 2023

Date Reported : Dec 13, 2023

Report Number : 2861709-3

- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- [A] Analysis conducted by ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Branch, DSS Accreditation No. 0009.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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Approved by

Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23136598
Date Received : Dec 06, 2023
Date Reported : Dec 13, 2023
Report Number : 2861710-1

Sample Number	23136598-2
Sampled Date	Dec 06, 2023 3:40 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Dec 06, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle, one BOD bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	4.8	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	51	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	71	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	68	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Cyanide as CN *	mg/L	0.001	0.005	0.012	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-CN (C, E)	Rayong
Formaldehyde	mg/L	0.03	0.1	Not Detected	≤1.0	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
pH at 25 degree C *		-	-	8.2	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Phenol	mg/L	0.005	0.01	Not Detected	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong

Technical Management

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23136598
Date Received : Dec 06, 2023
Date Reported : Dec 13, 2023
Report Number : 2861710-1

Sample Number	23136598-2
Sampled Date	Dec 06, 2023 3:40 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Dec 06, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle, one BOD bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Sulfide *	mg/L	-	0.5	<0.5	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (C, F)	Rayong
Temperature *	Degree C	-	-	29.7	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	2400	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	2.3	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	6	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Sampling By : Narunat thammasaro ทะเบียนเลขที ว-323-จ-9477 , Panupong Manit ทะเบียนเลขที ว-204-จ-8600

Remark :
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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

Narumon Banchongkit
Supervisor
ทะเบียนเลขที ว-323-จ-9445

Approved by

Dej Changchon
Senior Manager
ทะเบียนเลขที ว-323-ค-9442

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Analysis / Test Report

TESTING
No.0009

Lot ID: 23136598

Date Received : Dec 06, 2023
Date Reported : Dec 13, 2023
Report Number : 2861710-2

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Sample Number	23136598-2
Sampled Date	Dec 06, 2023 3:40 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Dec 07, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle, one BOD bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Aluminium	mg/L	0.003	0.005	0.14	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Arsenic	mg/L	0.0003	0.0005	0.001	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.07	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.03	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.003	≤2.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
Lead	mg/L	0.0003	0.0005	Not Detected	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Technical Management

Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ว-204-จ-4710

Approved by

Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0009

Lot ID: 23136598

Date Received : Dec 06, 2023
Date Reported : Dec 13, 2023
Report Number : 2861710-2

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Sample Number	23136598-2
Sampled Date	Dec 06, 2023 3:40 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Dec 07, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle, one BOD bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Manganese	mg/L	0.0003	0.0005	0.94	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury *	mg/L	0.0001	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3112	Bangkok
Nickel	mg/L	0.0003	0.0005	0.07	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Selenium	mg/L	0.0003	0.0005	Not Detected	≤0.02	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Silver	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	<0.01	≤0.75	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	0.67	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Water Testing							

Technical Management

Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ว-204-จ-4710

Approved by

Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0009

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23136598
Date Received : Dec 06, 2023
Date Reported : Dec 13, 2023
Report Number : 2861710-2

Sample Number	23136598-2
Sampled Date	Dec 06, 2023 3:40 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Dec 07, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle, one BOD bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Oil & Grease *	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 D	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Sampling By : Narunat thammasaro ทะเบียนเลขที ว-323-จ-9477 , Panupong Manit ทะเบียนเลขที ว-204-จ-8600

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ว-204-จ-4710

Approved by

Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23136598
Date Received : Dec 06, 2023
Date Reported : Dec 13, 2023
Report Number : 2861710-3

Sample Number	23136598-2
Sampled Date	Dec 06, 2023 3:40 PM
Sample Description	Wastewater
Location	Holding Pond
Date Analysis Commenced	Dec 07, 2023
Condition of Sample	Contained in two glass vials, one amber glass bottle, one BOD bottle and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[A] Iron	mg/L	0.003	0.005	0.11	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
[A] Fecal Coliform	MPN/100mL	-	-	240.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B, E	Bangkok
[A] Total Coliform	MPN/100mL	-	-	330.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	0.02	0.05	0.08	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NH3 (D)	Rayong
Chloride as Cl *	mg/L	0.5	1	976	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Dissolved Oxygen *	mg/L	-	0.1	4.9	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Fluoride	mg/L	0.05	0.2	0.8	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-F (C)	Rayong
Nitrate as N *	mg/L	0.015	0.05	30.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

Approved by

Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location: WWTP#2

Lot ID: 23136598
Date Received : Dec 06, 2023
Date Reported : Dec 13, 2023
Report Number : 2861710-3

Sampling By : Narunat thammasaro , Panupong Manit

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- [A] Analysis conducted by ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Branch, DSS Accreditation No. 0009.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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Narumon Banchongkit
Supervisor

Analysis / Test Report

Client : Rojana Industrial Management Co., Ltd.
2034/115 26TH Fl. Italthai Tower, New Petchburi Road, Bangkapi, Huaykwang, Bangkok Thailand 10310
P/O :
Project Name : โครงการเขตประกอบการอุตสาหกรรมโรจนะ ระยอง (โรจนะบ้านค่าย)
Project Location : WWTP#2

Lot ID: 23136598
Date Received : Dec 06, 2023
Date Reported : Dec 13, 2023
Report Number : 2861711-1

Sample Number	23136598-3
Sampled Date	Dec 06, 2023 3:30 PM
Sample Description	Wastewater
Location	Aeration (บ่อA)
Date Analysis Commenced	Dec 07, 2023
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
Mixed Liqour Suspended Solids	mg/L	-	5	4110	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong
Sludge Volume Index	mL/g	-	5	39	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2170 D	Rayong
SV30	mL/L	-	2	160	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2170 C	Rayong

Sampling By : Narunat thammasaro , Panupong Manit

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Narumon Banchongkit
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