Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name :
Project Location : WHA EIE

Lot ID: 2411116
Date Received : Feb 01, 2024
Date Reported : Feb 07, 2024
Report Number : 2897171-1

Sampling By : Chainusorn Lertnanthakunchai ทะเบียนเลขที่ ว-323-ล-9461

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 N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-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.

ADDRESS 616/10 Moo 5 T. Maenam Khu A. Pluakdaeng Rayong 21140 Thailand PHONE +66 0 3304 8555 FAX +66 0 3304 8556
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RIGHT SOLUTIONS RIGHT PARTNER

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name :
Project Location : WHA EIE

Lot ID: 2420572
Date Received : Mar 01, 2024
Date Reported : Mar 08, 2024
Report Number : 2916763-1

Sample Number	2420572-1
Sampled Date	Mar 01, 2024 11:42 AM
Sample Description	Wastewater
Location	WHA EIE : Effluent_High TDS
Date Analysis Commenced	Mar 01, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property	Yellow, some odour, solid and turbid

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	≤16	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	33	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	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
Temperature *	Degree C	-	-	37.6	≤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	11500	(1)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	37	≤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).
(1) Total Dissolved Solids when discharged to receiving water having TDS > 3,000 mg/L, TDS in the to-be-discharged wastewater can exceed the TDS already found in the receiving water by not higher than 5,000 mg/L.
Note : BOD Guideline set by Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563

Technical Management Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9446

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name :
Project Location : WHA EIE

Lot ID: 2420572
Date Received : Mar 01, 2024
Date Reported : Mar 08, 2024
Report Number : 2916763-1

Sampling By : Surawit Narapong ทะเบียนเลขที่ ว-323-ล-0011

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

Technical Management Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9446

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name :
Project Location : WHA EIE

Lot ID: 2433976
Date Received : Apr 08, 2024
Date Reported : Apr 15, 2024
Report Number : 2946420-1

Sample Number	2433976-1
Sampled Date	Apr 08, 2024 11:45 AM
Sample Description	Wastewater
Location	WHA EIE : Effluent_High TDS
Date Analysis Commenced	Apr 08, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property	Yellow, some odour, solid and turbid

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	≤16	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	47	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	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
Temperature *	Degree C	-	-	38.3	≤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	11600	(1)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	17	≤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).
(1) Total Dissolved Solids when discharged to receiving water having TDS > 3,000 mg/L, TDS in the to-be-discharged wastewater can exceed the TDS already found in the receiving water by not higher than 5,000 mg/L.
Note : BOD Guideline set by Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563

Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name :
Project Location: WHA EIE

Lot ID: 2433976
Date Received : Apr 08, 2024
Date Reported : Apr 15, 2024
Report Number : 2946420-1

Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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-ส-9445

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name :
Project Location: WHA EIE

Lot ID: 2446035
Date Received : May 06, 2024
Date Reported : May 13, 2024
Report Number : 2973805-1

Sample Number	2446035-1
Sampled Date	May 06, 2024 11:40 AM
Sample Description	Wastewater
Location	WHA EIE : Effluent_High TDS
Date Analysis Commenced	May 06, 2024
Condition of Sample	Contained in three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property	Yellow, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	5.0	≤16	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	61	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	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
Temperature *	Degree C	-	-	35.4	≤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	10460	(1)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	15	≤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).
(1) Total Dissolved Solids when discharged to receiving water having TDS > 3,000 mg/L, TDS in the to-be-discharged wastewater can exceed the TDS already found in the receiving water by not higher than 5,000 mg/L.
Note : BOD Guideline set by Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ส-9445

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name :
Project Location: WHA EIE

Lot ID: 2446035
Date Received : May 06, 2024
Date Reported : May 13, 2024
Report Number : 2973805-1

Remark :
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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ส-9445

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name :
Project Location: WHA EIE

Lot ID: 2459484
Date Received : Jun 03, 2024
Date Reported : Jun 10, 2024
Report Number : 3003389-1

Sample Number	2459484-1
Sampled Date	Jun 03, 2024 11:35 AM
Sample Description	Wastewater
Location	WHA EIE : Effluent_High TDS
Date Analysis Commenced	Jun 03, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	2.4	≤16	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	41	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	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
Temperature *	Degree C	-	-	38.8	≤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	11580	(1)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	33	≤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).
(1) Total Dissolved Solids when discharged to receiving water having TDS > 3,000 mg/L, TDS in the to-be-discharged wastewater can exceed the TDS already found in the receiving water by not higher than 5,000 mg/L.
Note : BOD Guideline set by Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563

Technical Management Thanita Kulsuriwong, Scientist (4), ทะเบียนเลขที่ ว-323-ส-9447

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23145012
Date Received : Jan 08, 2024
Date Reported : Jan 15, 2024
Report Number : 2867403-1

Sample Number	23145012-1
Sampled Date	Jan 08, 2024 1:50 PM
Sample Description	Wastewater
Contract ID	L_EIE_001_2566 **Plot** G-1/1 **Site** E-COATINGS ASIA COMPANY LIMITED
Date Analysis Commenced	Jan 08, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid, and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	33.4	≤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	97	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	444	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	17	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005 , Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23144998
Date Received : Jan 11, 2024
Date Reported : Jan 17, 2024
Report Number : 2867377-1

Sample Number	23144998-1
Sampled Date	Jan 11, 2024 9:45 AM
Sample Description	Wastewater
Contract ID	L_WHA EIE_006_2563 **Plot** G.77, G.77/1, H.42, H.44 **Site** GC Polyols Company Limited
Date Analysis Commenced	Jan 11, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	26	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	6.8	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	620	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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-ส-9445

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23144988
Date Received : Jan 12, 2024
Date Reported : Jan 18, 2024
Report Number : 2867337-1

Sample Number	23144988-1
Sampled Date	Jan 12, 2024 3:05 PM
Sample Description	Wastewater
Contract ID	L_EIE_001_2551 **Plot** G-06A **Site** Global Green Chemicals Co.,Ltd.
Date Analysis Commenced	Jan 12, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	19.5	≤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	128	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	312	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	55	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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

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

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

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23144984
Date Received : Jan 11, 2024
Date Reported : Jan 17, 2024
Report Number : 2879019-1

Sample Number	23144984-1
Sampled Date	Jan 11, 2024 10:55 AM
Sample Description	Wastewater
Contract ID	L_EIE_024_2550 **Plot** G-76 **Site** Global Power Synergy Co.,Ltd.
Location	CUP-1
Date Analysis Commenced	Jan 11, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	192	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	8	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23144983
Date Received : Jan 12, 2024
Date Reported : Jan 18, 2024
Report Number : 2867324-1

Sample Number	23144983-1
Sampled Date	Jan 12, 2024 3:30 PM
Sample Description	Wastewater
Contract ID	L_EIE_002_2553 **Plot** H-17 **Site** Global Power Synergy Co.,Ltd.
Location	CUP-3
Date Analysis Commenced	Jan 12, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

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	≤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	28	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	620	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	12	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ล-9445

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23145003
Date Received : Jan 09, 2024
Date Reported : Jan 16, 2024
Report Number : 2867351-1

Sample Number	23145003-1
Sampled Date	Jan 09, 2024 10:40 AM
Sample Description	Wastewater
Contract ID	L_EIE_002_2561 **Plot** H.52A **Site** Iharanikkei Chemical (Thailand) Co.,Ltd.
Date Analysis Commenced	Jan 09, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	25.3	≤200	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	67	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	324	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	11	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ล-9445

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23144967
Date Received : Jan 08, 2024
Date Reported : Jan 15, 2024
Report Number : 2867282-1

Sample Number	23144967-1
Sampled Date	Jan 08, 2024 10:20 AM
Sample Description	Wastewater
Contract ID	L_EIE_005_2552 **Plot** G-30 **Site** KLJ Organic (Thailand) Ltd.
Date Analysis Commenced	Jan 08, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	184	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

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Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ล-9445

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
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P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23145007
Date Received : Jan 09, 2024
Date Reported : Jan 16, 2024
Report Number : 2867399-1

Sample Number	23145007-1
Sampled Date	Jan 09, 2024 3:15 PM
Sample Description	Wastewater
Contract ID	L_EIE_002_2565 **Plot** H.13a, H.13e, PW.27-1, H.47b **Site** Kuraray Advanced chemicals(Thailand) Co.,Ltd.
Date Analysis Commenced	Jan 09, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	10.6	≤200	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	33	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	44	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

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Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ล-9445

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23145006
Date Received : Jan 09, 2024
Date Reported : Jan 16, 2024
Report Number : 2867398-1

Sample Number	23145006-1
Sampled Date	Jan 09, 2024 3:00 PM
Sample Description	Wastewater
Contract ID	L_EIE_001_2565 **Plot** PW.28, PW.31, H.47a, H.47c, H.51 **Site** Kuraray GC Advanced Materials Co.,Ltd. (North)
Date Analysis Commenced	Jan 09, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	15.0	≤200	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	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1412	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

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Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-จ-0005

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23144981
Date Received : Jan 08, 2024
Date Reported : Jan 15, 2024
Report Number : 2867321-1

Sample Number	23144981-1
Sampled Date	Jan 08, 2024 2:35 PM
Sample Description	Wastewater
Contract ID	L_EIE_015_2550 **Plot** G-14 **Site** Linde (Thailand) PLC.
Date Analysis Commenced	Jan 08, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	58.8	≤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	203	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	4	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.0	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	492	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	33	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-จ-0005

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23144993
Date Received : Jan 11, 2024
Date Reported : Jan 17, 2024
Report Number : 2867346-1

Sample Number	23144993-1
Sampled Date	Jan 11, 2024 3:05 PM
Sample Description	Wastewater
Contract ID	L_EIE_004_2556 **Plot** H-10 , H-11 **Site** Linde (Thailand) Public Company Limited.
Date Analysis Commenced	Jan 11, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	35	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.1	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	860	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-จ-0005

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 N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by D.Changchon
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.

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23144968
Date Received : Jan 08, 2024
Date Reported : Jan 15, 2024
Report Number : 2867287-1

Sample Number	23144968-1
Sampled Date	Jan 08, 2024 10:50 AM
Sample Description	Wastewater
Contract ID	L_EIE_002_2551 **Plot** G-23 **Site** MARC (Thailand) Co.,Ltd.
Date Analysis Commenced	Jan 08, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	188	≤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	472	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	9	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	632	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	102	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-จ-0005

Remark :
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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

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

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Analysis / Test Report

TESTING
No.0042

Lot ID: 23144989

Date Received : Jan 11, 2024
Date Reported : Jan 18, 2024
Report Number : 2867338-1

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Sample Number	23144989-1
Sampled Date	Jan 11, 2024 2:20 PM
Sample Description	Wastewater
Contract ID	L_EIE_010_2550 **Plot** G-03 **Site** MCLS Asia Co.,Ltd.
Date Analysis Commenced	Jan 11, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, a lot of solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	18.9	≤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	106	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1648	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	33	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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-ล-9445

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

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Analysis / Test Report

TESTING
No.0042

Lot ID: 23144978

Date Received : Jan 08, 2024
Date Reported : Jan 15, 2024
Report Number : 2867306-1

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Sample Number	23144978-1
Sampled Date	Jan 08, 2024 2:20 PM
Sample Description	Wastewater
Contract ID	L_EIE_011_2550 **Plot** G-12 **Site** Mechema Chemical Co.,Ltd.
Date Analysis Commenced	Jan 08, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	192	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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
ทะเบียนเลขที่ ว-323-ล-9445

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

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Analysis / Test Report

TESTING
No.0042

Lot ID: 23144966

Date Received : Jan 08, 2024
Date Reported : Jan 15, 2024
Report Number : 2867279-1

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Sample Number	23144966-1
Sampled Date	Jan 08, 2024 11:30 AM
Sample Description	Wastewater
Contract ID	L_EIE_025_2550 **Plot** G-43 **Site** MIG Production Co.,Ltd.
Date Analysis Commenced	Jan 08, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, a lot of solid and some turbid

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	≤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	69	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1424	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	19	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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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-ล-9445

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

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Analysis / Test Report

TESTING
No.0042

Lot ID: 23145028

Date Received : Jan 08, 2024
Date Reported : Jan 15, 2024
Report Number : 2867391-1

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Sample Number	23145028-1
Sampled Date	Jan 08, 2024 9:40 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2550 **Plot** G-72 **Site** NS BlueScope (Thailand) Limited.
Date Analysis Commenced	Jan 08, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	16.2	≤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	69	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1772	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	12	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005 , Thanasoun Namakunna ทะเบียนเลขที่ ว-204-ล-8592

Remark :
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Technical Management
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

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

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Analysis / Test Report

TESTING
No.0009

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23145028
Date Received : Jan 08, 2024
Date Reported : Jan 15, 2024
Report Number : 2867391-2

Sample Number	23145028-1
Sampled Date	Jan 08, 2024 9:40 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2550 **Plot** G-72 **Site** NS BlueScope (Thailand) Limited.
Date Analysis Commenced	Jan 09, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
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

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005 , Thanasoun Namakunna ทะเบียนเลขที่ ว-204-ส-8592

Remark :
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Technical Management Sawitree N.
Sawitree Noisangiam
Manager
ทะเบียนเลขที่ ว-204-ส-4709

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

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Analysis / Test Report

TESTING
No.0009

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23145028
Date Received : Jan 08, 2024
Date Reported : Jan 15, 2024
Report Number : 2867391-3

Page 1 of 1

Sample Number	23145028-1
Sampled Date	Jan 08, 2024 9:40 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2550 **Plot** G-72 **Site** NS BlueScope (Thailand) Limited.
Date Analysis Commenced	Jan 09, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Iron	mg/L	0.003	0.005	2.98	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui , Thanasoun Namakunna

Remark :
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Approved by Sawitree N.
Sawitree Noisangiam
Manager

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23145023
Date Received : Jan 11, 2024
Date Reported : Jan 17, 2024
Report Number : 2867387-1

Sample Number	23145023-1
Sampled Date	Jan 11, 2024 11:15 AM
Sample Description	Wastewater
Contract ID	L_EIE_020_2550 **Plot** G-56 - G-66,68 **Site** NS-Siam United Steel Co.,Ltd.
Location	Factory 1
Date Analysis Commenced	Jan 11, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	8.7	≤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	33	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.2	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	34.6	≤45	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	700	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	10	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005 , Thanasoun Namakunna ทะเบียนเลขที่ ว-204-ส-8592

Remark :
- LOD : Limit of Detection

Technical Management N.Bamphit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ส-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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www.alsglobal.com

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23145023
Date Received : Jan 11, 2024
Date Reported : Jan 17, 2024
Report Number : 2867387-1

Page 2 of 2

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Technical Management N.Bamphit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ส-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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5317-142/ EMAIL S:\Reports_All_GL.rpt (12.57PM)

Analysis / Test Report

TESTING
No.0009

Lot ID: 23145023

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Jan 11, 2024
Date Reported : Jan 18, 2024
Report Number : 2867387-2

Sample Number	23145023-1
Sampled Date	Jan 11, 2024 11:15 AM
Sample Description	Wastewater
Contract ID	L_EIE_020_2550 **Plot** G-56 - G-66,68 **Site** NS-Siam United Steel Co.,Ltd.
Location	Factory 1
Date Analysis Commenced	Jan 12, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Iron	mg/L	0.003	0.005	0.83	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui , Thanasoun Namakunna

Remark :
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Approved by
Sawitree Noisangiam
Manager

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Analysis / Test Report

TESTING
No.0042

Lot ID: 23145026

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Jan 11, 2024
Date Reported : Jan 17, 2024
Report Number : 2867389-1

Sample Number	23145026-1
Sampled Date	Jan 11, 2024 11:30 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2556 **Plot** G-67 **Site** Ns-Siam United Steel Co.,Ltd.
Location	Factory 2
Date Analysis Commenced	Jan 11, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.0	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	280	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005 , Thanasoun Namakunna ทะเบียนเลขที่ ว-204-ล-8592

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

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

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Analysis / Test Report

TESTING
No.0009

Lot ID: 23145026

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Jan 11, 2024
Date Reported : Jan 18, 2024
Report Number : 2867389-2

Sample Number	23145026-1
Sampled Date	Jan 11, 2024 11:30 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2556 **Plot** G-67 **Site** Ns-Siam United Steel Co.,Ltd.
Location	Factory 2
Date Analysis Commenced	Jan 12, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Zinc	mg/L	0.003	0.005	0.61	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005 , Thanasoun Namakunna ทะเบียนเลขที่ ว-204-ล-8592

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

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

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Analysis / Test Report

TESTING
No.0042

Lot ID: 23144991

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Jan 11, 2024
Date Reported : Jan 18, 2024
Report Number : 2867344-1

Sample Number	23144991-1
Sampled Date	Jan 11, 2024 2:00 PM
Sample Description	Wastewater
Contract ID	L_EIE_002_2554 **Plot** H-12 **Site** PTT Asahi Chemical Co.,Ltd.
Date Analysis Commenced	Jan 11, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	4.9	≤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	44	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.0	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1888	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	10	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
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P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23144980
Date Received : Jan 12, 2024
Date Reported : Jan 18, 2024
Report Number : 2867311-1

Sample Number	23144980-1
Sampled Date	Jan 12, 2024 2:30 PM
Sample Description	Wastewater
Contract ID	L_EIE_003_2554 **Plot** G-02,03 **Site** PTT Global Chemical Public Company Limited. (EA Plant)
Date Analysis Commenced	Jan 12, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	172	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-จ-0005

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

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ต-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23145014
Date Received :Jan 12, 2024
Date Reported :Jan 18, 2024
Report Number :2867379-1

Sample Number	23145014-1
Sampled Date	Jan 12, 2024 2:00 PM
Sample Description	Wastewater
Contract ID	L_EIE_023_2550 **Plot** G-02-02A-03 **Site** PTT Global Chemical Public Company Limited. (EG Plant)
Date Analysis Commenced	Jan 12, 2024
Condition of Sample	Contained in two amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
BOD (5 days at 20 Degree C)	mg/L	-	2.0	44.1	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	125	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Formaldehyde	mg/L	0.03	0.1	0.1	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Oil & Grease	mg/L	-	3	<3	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	692	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	19	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-จ-0005

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

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ต-9442

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Analysis / Test Report

Client : WHA Utilities and Power Public Company Limited
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P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23145014
Date Received :Jan 12, 2024
Date Reported :Jan 18, 2024
Report Number :2867379-2

Sample Number	23145014-1
Sampled Date	Jan 12, 2024 2:00 PM
Sample Description	Wastewater
Contract ID	L_EIE_023_2550 **Plot** G-02-02A-03 **Site** PTT Global Chemical Public Company Limited. (EG Plant)
Date Analysis Commenced	Jan 17, 2024
Condition of Sample	Contained in two amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
Chloride as Cl2	mg/L	0.5	1	111	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (B)	Rayong

Sampling By : Sansoen Khuiyoksui

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23145001
Date Received : Jan 09, 2024
Date Reported : Jan 16, 2024
Report Number : 2867335-1

Sample Number	23145001-1
Sampled Date	Jan 09, 2024 10:10 AM
Sample Description	Wastewater
Contract ID	L_EIE_001_2552 **Plot** H-20-22 **Site** PTT Global Chemical Public Company Limited
Location	Station-1 (Admin)
Date Analysis Commenced	Jan 09, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	96.3	≤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	188	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	7	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	428	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	27	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-จ-0005

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

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ต-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23145021
Date Received : Jan 09, 2024
Date Reported : Jan 16, 2024
Report Number : 2867385-1

Sample Number	23145021-1
Sampled Date	Jan 09, 2024 9:50 AM
Sample Description	Wastewater
Contract ID	L_EIE_002_2552 **Plot** H-20-22 **Site** PTT Global Chemical Public Company Limited
Location	Station-2 (Factory)
Date Analysis Commenced	Jan 09, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, a lot of solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	15.2	≤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	71	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	8.4	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	7320	(1)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	21	≤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).
(1) Total Dissolved Solids when discharged to receiving water having TDS > 3,000 mg/L, TDS in the to-be-discharged wastewater can exceed the TDS already found in the receiving water by not higher than 5,000 mg/L.
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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

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

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

Analysis / Test Report
TESTING
No.0042
Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE
Lot ID: 23145021
Date Received : Jan 09, 2024
Date Reported : Jan 16, 2024
Report Number : 2867385-1.

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
ทะเบียนเลขที่ ว-323-ส-9445

Approved by
Dej Changchon
Senior Manager
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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23145000
Date Received : Jan 11, 2024
Date Reported : Jan 17, 2024
Report Number : 2867334-1

Sample Number	23145000-1
Sampled Date	Jan 11, 2024 10:20 AM
Sample Description	Wastewater
Contract ID	L_EIE_004_2553 **Plot** H-23A,H-31 **Site** PTT Global Chemical Public Company Limited
Location	Bis-Phenol A
Date Analysis Commenced	Jan 11, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	27	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.2	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	852	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23145005
Date Received : Jan 09, 2024
Date Reported : Jan 16, 2024
Report Number : 2867374-1

Sample Number	23145005-1
Sampled Date	Jan 09, 2024 11:25 AM
Sample Description	Wastewater
Contract ID	L_WHA EIE_004_2563 **Plot** H.13/1 **Site** Quechen Silica (Thailand) Co.,Ltd.
Location	Domestic wastewater
Date Analysis Commenced	Jan 09, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	16.6	≤200	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	54	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	384	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	6	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23144985
Date Received : Jan 08, 2024
Date Reported : Jan 15, 2024
Report Number : 2867332-1

Sample Number	23144985-1
Sampled Date	Jan 08, 2024 9:50 AM
Sample Description	Wastewater
Contract ID	L_EIE_005_2550 **Plot** G-71 **Site** Rockwool (Thailand) Limited.
Date Analysis Commenced	Jan 08, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	238	≤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	486	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	5	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	496	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	74	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ส-9445
Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23145035
Date Received : Jan 11, 2024
Date Reported : Jan 17, 2024
Report Number : 2867394-1

Sample Number	23145035-1
Sampled Date	Jan 11, 2024 1:50 PM
Sample Description	Wastewater
Contract ID	L_EIE_002_2558 **Plot** H-15 **Site** S and L Specialty Polymers Co.,Ltd.
Location	Station 2
Date Analysis Commenced	Jan 11, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	7.9	≤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	50	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	6.8	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	37.0	≤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	27350	(1)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	15	≤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).
(1) Total Dissolved Solids when discharged to receiving water having TDS > 3,000 mg/L, TDS in the to-be-discharged wastewater can exceed the TDS already found in the receiving water by not higher than 5,000 mg/L.
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ส-9445
Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
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P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23145035
Date Received : Jan 11, 2024
Date Reported : Jan 17, 2024
Report Number : 2867394-1

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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ส-9445
Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23145034
Date Received : Jan 09, 2024
Date Reported : Jan 16, 2024
Report Number : 2867397-1

Sample Number	23145034-1
Sampled Date	Jan 09, 2024 10:25 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2558 **Plot** H-45 **Site** SEKISUI SPECIALTY CHEMICALS (THAILAND) Co.,Ltd.
Date Analysis Commenced	Jan 09, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	30.9	≤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	85	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Temperature *	Degree C	-	-	30.8	≤45	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	436	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	25	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ส-9445
Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23145034
Date Received : Jan 09, 2024
Date Reported : Jan 16, 2024
Report Number : 2867397-1

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

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

Approved by
Dej Changchon
Senior Manager
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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23144975
Date Received : Jan 08, 2024
Date Reported : Jan 15, 2024
Report Number : 2867303-1

Sample Number	23144975-1
Sampled Date	Jan 08, 2024 2:15 PM
Sample Description	Wastewater
Contract ID	L_EIE_013_2550 **Plot** G-10 **Site** Siam Stabilizers & Chemicals Co.,Ltd.
Date Analysis Commenced	Jan 08, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	40.9	≤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	158	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	500	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	55	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management
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Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23144996
Date Received : Jan 09, 2024
Date Reported : Jan 16, 2024
Report Number : 2867350-1

Sample Number	23144996-1
Sampled Date	Jan 09, 2024 2:05 PM
Sample Description	Wastewater
Contract ID	L_EIE_001_2561 **Plot** G-34/1 **Site** Solvay (Thailand) Limited.
Date Analysis Commenced	Jan 09, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Green, some odour, solid and turbid

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	≤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	95	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	608	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	34	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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-ล-9445

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23145020
Date Received : Jan 08, 2024
Date Reported : Jan 15, 2024
Report Number : 2867352-1

Sample Number	23145020-1
Sampled Date	Jan 08, 2024 3:15 PM
Sample Description	Wastewater
Contract ID	L_EIE_026_2550 **Plot** G-05 **Site** Thai Ethoxylate Co.,Ltd.
Date Analysis Commenced	Jan 08, 2024
Condition of Sample	Contained in two amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	34.8	≤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	120	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Formaldehyde	mg/L	0.03	0.1	Not Detected	≤1	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	232	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	17	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23145020
Date Received : Jan 08, 2024
Date Reported : Jan 15, 2024
Report Number : 2867352-1

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

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23144990
Date Received : Jan 12, 2024
Date Reported : Jan 18, 2024
Report Number : 2867342-1

Sample Number	23144990-1
Sampled Date	Jan 12, 2024 11:00 AM
Sample Description	Wastewater
Contract ID	L_EIE_016_2550 **Plot** G-51 **Site** Thai Pet Resin Co.,Ltd.
Location	Station-1
Date Analysis Commenced	Jan 12, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	21.6	≤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	70	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	772	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	13	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23145016
Date Received : Jan 08, 2024
Date Reported : Jan 15, 2024
Report Number : 2867382-1

Sample Number	23145016-1
Sampled Date	Jan 08, 2024 2:55 PM
Sample Description	Wastewater
Contract ID	L_EIE_021_2550 **Plot** G-04 **Site** Vanachai Chemical Industries Co.,Ltd.
Date Analysis Commenced	Jan 08, 2024
Condition of Sample	Contained in two amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Formaldehyde	mg/L	0.03	0.1	<0.1	≤1	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	224	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 23145016
Date Received : Jan 08, 2024
Date Reported : Jan 15, 2024
Report Number : 2867382-1

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

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

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

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Analysis / Test Report

TESTING
No.0042

Lot ID: 23144995

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Jan 08, 2024
Date Reported : Jan 15, 2024
Report Number : 2867348-1

Sample Number	23144995-1
Sampled Date	Jan 08, 2024 10:40 AM
Sample Description	Wastewater
Contract ID	L_EIE_004_2558 **Plot** G.18 G.19 P.7 **Site** Vencorex (Thailand) Co.,Ltd.
Date Analysis Commenced	Jan 08, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, a lot of solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	16.2	≤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	40	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	752	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	9	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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

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

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Analysis / Test Report

TESTING
No.0042

Lot ID: 23144999

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received :Jan 08, 2024
Date Reported :Jan 15, 2024
Report Number :2867291-1

Sample Number	23144999-1
Sampled Date	Jan 08, 2024 1:55 PM
Sample Description	Wastewater
Contract ID	L_EIE_022_2550 **Plot** G-01 **Site** Zeon Chemical (Thailand) Co.,Ltd.
Date Analysis Commenced	Jan 08, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, a lot of solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	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	41	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.6	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1372	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005 , Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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

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

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Analysis / Test Report

TESTING
No.0042

Lot ID: 23145004

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Jan 09, 2024
Date Reported : Jan 16, 2024
Report Number : 2867354-1

Sample Number	23145004-1
Sampled Date	Jan 09, 2024 10:55 AM
Sample Description	Wastewater
Contract ID	L_WHA EIE_001_2563 **Plot** H-49 **Site** Zeon Chemicals Asia Co.,Ltd.
Date Analysis Commenced	Jan 09, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

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	≤200	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	44	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	2248	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	12	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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

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

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Analysis / Test Report

TESTING
No.0042

Lot ID: 248574

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Feb 02, 2024
Date Reported : Feb 08, 2024
Report Number : 2893273-1

Sample Number	248574-1
Sampled Date	Feb 02, 2024 10:00 AM
Sample Description	Wastewater
Contract ID	L_EIE_001_2556 **Plot** G-69,G-70 **Site** Aditya Birla Chemicals (Thailand) Ltd. (Advanced Materials)
Date Analysis Commenced	Feb 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	44.6	≤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	176	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	504	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	22	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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

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

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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company
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Life Sciences
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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248570
Date Received : Feb 08, 2024
Date Reported : Feb 14, 2024
Report Number : 2893255-1

Sample Number	248570-1
Sampled Date	Feb 08, 2024 10:00 AM
Sample Description	Wastewater
Contract ID	L_EIE_018_2550 **Plot** G-08 **Site** AGC Vinythai Public Company Limited
Date Analysis Commenced	Feb 08, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and a lot of turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	21.0	≤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	114	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	520	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	14	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui หมายเลขที่ ว-323-ล-0005

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Technical Management Narumon Banchongkit, Supervisor, หมายเลขที่ ว-323-ล-9445
Approved by Dej Changchon, Senior Manager, หมายเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248602
Date Received : Feb 08, 2024
Date Reported : Feb 14, 2024
Report Number : 2893361-1

Sample Number	248602-1
Sampled Date	Feb 08, 2024 10:15 AM
Sample Description	Wastewater
Contract ID	L_EIE_002_2566 **Plot** G-15 to G-17 **Site** AGC Vinythai Public Company Limited
Date Analysis Commenced	Feb 08, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	7.7	≤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	96	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	564	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	11	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui หมายเลขที่ ว-323-ล-0005

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Approved by Dej Changchon, Senior Manager, หมายเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248562
Date Received : Feb 06, 2024
Date Reported : Feb 12, 2024
Report Number : 2893236-1

Sample Number	248562-1
Sampled Date	Feb 06, 2024 10:25 AM
Sample Description	Wastewater
Contract ID	L_EIE_014_2550 **Plot** G-35 **Site** Allnex (Thailand) Ltd.
Date Analysis Commenced	Feb 06, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	40.2	≤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	124	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	8.8	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	252	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	12	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

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Sampling By : Sansoen Khuiyoksui หมายเลขที่ ว-323-ล-0005

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248563
Date Received : Feb 02, 2024
Date Reported : Feb 08, 2024
Report Number : 2893238-1

Sample Number	248563-1
Sampled Date	Feb 02, 2024 3:25 PM
Sample Description	Wastewater
Contract ID	L_EIE_001_2550 **Plot** G-29 **Site** Arakawa Chemical (Thailand) Ltd.
Date Analysis Commenced	Feb 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	25.0	≤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	123	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	440	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	19	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

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Approved by Dej Changchon, Senior Manager, หมายเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248564
Date Received : Feb 02, 2024
Date Reported : Feb 08, 2024
Report Number : 2893243-1

Sample Number	248564-1
Sampled Date	Feb 02, 2024 2:00 PM
Sample Description	Wastewater
Contract ID	L_EIE_002_2550 **Plot** G-09 **Site** Asia Petroleum Thailand Co.,Ltd.
Date Analysis Commenced	Feb 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	172	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

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Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248580
Date Received : Feb 05, 2024
Date Reported : Feb 12, 2024
Report Number : 2893284-1

Sample Number	248580-1
Sampled Date	Feb 05, 2024 11:05 AM
Sample Description	Wastewater
Contract ID	L_EIE_002_2556 **Plot** H-37 **Site** Bangkok Industrial Gas Company Limited.
Date Analysis Commenced	Feb 05, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, a lot of solid and no turbid

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	≤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	36	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	980	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	6	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

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Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248582
Date Received : Feb 08, 2024
Date Reported : Feb 15, 2024
Report Number : 2893288-1

Sample Number	248582-1
Sampled Date	Feb 08, 2024 11:35 AM
Sample Description	Wastewater
Contract ID	L_EIE_004_2550 **Plot** G-37 **Site** Carbide Chemical (Thailand) Ltd.
Location	Inspection manhole
Date Analysis Commenced	Feb 08, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	5	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	312	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ล-9445

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248601
Date Received : Feb 02, 2024
Date Reported : Feb 09, 2024
Report Number : 2893355-1

Sample Number	248601-1
Sampled Date	Feb 02, 2024 1:50 PM
Sample Description	Wastewater
Contract ID	L_EIE_001_2566 **Plot** G-1/1 **Site** E-COATINGS ASIA COMPANY LIMITED
Date Analysis Commenced	Feb 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and a lot of turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	20.9	≤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	63	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	400	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	36	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ล-9445

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248586
Date Received : Feb 06, 2024
Date Reported : Feb 12, 2024
Report Number : 2893312-1

Sample Number	248586-1
Sampled Date	Feb 06, 2024 9:30 AM
Sample Description	Wastewater
Contract ID	L_WHA EIE_006_2563 **Plot** G.77, G.77/1, H.42 H.44 **Site** GC Polyols Company Limited
Date Analysis Commenced	Feb 06, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	544	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248576
Date Received : Feb 08, 2024
Date Reported : Feb 14, 2024
Report Number : 2893278-1

Sample Number	248576-1
Sampled Date	Feb 08, 2024 3:00 PM
Sample Description	Wastewater
Contract ID	L_EIE_001_2551 **Plot** G-06A **Site** Global Green Chemicals Co.,Ltd.
Date Analysis Commenced	Feb 08, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	19.8	≤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	66	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	436	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	34	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248572
Date Received : Feb 08, 2024
Date Reported : Feb 14, 2024
Report Number : 2893267-1

Sample Number	248572-1
Sampled Date	Feb 08, 2024 11:05 AM
Sample Description	Wastewater
Contract ID	L_EIE_024_2550 **Plot** G-76 **Site** Global Power Synergy Co.,Ltd.
Location	CUP-1
Date Analysis Commenced	Feb 08, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	292	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	48	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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Technical Management
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Supervisor
ทะเบียนเลขที่ ว-323-ส-9445

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248571
Date Received : Feb 06, 2024
Date Reported : Feb 12, 2024
Report Number : 2893263-1

Sample Number	248571-1
Sampled Date	Feb 06, 2024 3:30 PM
Sample Description	Wastewater
Contract ID	L_EIE_002_2553 **Plot** H-17 **Site** Global Power Synergy Co.,Ltd.
Location	CUP-3
Date Analysis Commenced	Feb 06, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	42	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1128	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	16	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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

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

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Analysis / Test Report

TESTING
No.0042

Lot ID: 248593
Date Received : Feb 05, 2024
Date Reported : Feb 12, 2024
Report Number : 2893293-1

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Sample Number	248593-1
Sampled Date	Feb 05, 2024 10:50 AM
Sample Description	Wastewater
Contract ID	L_EIE_002_2561 **Plot** H.52A **Site** Iharanikkei Chemical (Thailand) Co.,Ltd.
Date Analysis Commenced	Feb 05, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	43.1	≤200	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	108	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	436	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	10	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-ล-9460

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Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Lot ID: 248559
Date Received : Feb 02, 2024
Date Reported : Feb 08, 2024
Report Number : 2893228-1

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Sample Number	248559-1
Sampled Date	Feb 02, 2024 10:15 AM
Sample Description	Wastewater
Contract ID	L_EIE_005_2552 **Plot** G-30 **Site** KLJ Organic (Thailand) Ltd.
Date Analysis Commenced	Feb 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, a lot of solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	200	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	7	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Lot ID: 248597
Date Received : Feb 05, 2024
Date Reported : Feb 12, 2024
Report Number : 2893353-1

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Sample Number	248597-1
Sampled Date	Feb 05, 2024 2:40 PM
Sample Description	Wastewater
Contract ID	L_EIE_002_2565 **Plot** H.13a, H.13e, PW.27-1, H.47b **Site** Kuraray Advanced chemicals(Thailand) Co.,Ltd.
Date Analysis Commenced	Feb 05, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	13.2	≤200	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	31	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	32	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	8	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-ล-9460

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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ล-9445
Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Lot ID: 248596
Date Received : Feb 05, 2024
Date Reported : Feb 15, 2024
Report Number : 2893347-1

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Sample Number	248596-1
Sampled Date	Feb 05, 2024 2:25 PM
Sample Description	Wastewater
Contract ID	L_EIE_001_2565 **Plot** PW.28, PW.31, H.47a, H.47c, H.51 **Site** Kuraray GC Advanced Materials Co.,Ltd. (North)
Date Analysis Commenced	Feb 05, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	15.4	≤200	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	68	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1628	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-ล-9460

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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-ล-9445
Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248569
Date Received : Feb 02, 2024
Date Reported : Feb 09, 2024
Report Number : 2893254-1

Sample Number	248569-1
Sampled Date	Feb 02, 2024 2:25 PM
Sample Description	Wastewater
Contract ID	L_EIE_015_2550 **Plot** G-14 **Site** Linde (Thailand) PLC.
Date Analysis Commenced	Feb 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	65.1	≤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	284	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	576	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	58	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทรเบียนเลขที่ ว-323-ล-0005

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, ทรเบียนเลขที่ ว-323-ล-9445
Approved by Dej Changchon, Senior Manager, ทรเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248581
Date Received : Feb 06, 2024
Date Reported : Feb 12, 2024
Report Number : 2893286-1

Sample Number	248581-1
Sampled Date	Feb 06, 2024 2:15 PM
Sample Description	Wastewater
Contract ID	L_EIE_004_2556 **Plot** H-10 , H-11 **Site** Linde (Thailand) Public Company Limited.
Date Analysis Commenced	Feb 06, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

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	≤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	33	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	964	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทรเบียนเลขที่ ว-323-ล-0005

Remark :
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Technical Management Narumon Banchongkit, Supervisor, ทรเบียนเลขที่ ว-323-ล-9445
Approved by Dej Changchon, Senior Manager, ทรเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248560
Date Received : Feb 02, 2024
Date Reported : Feb 08, 2024
Report Number : 2893231-1

Sample Number	248560-1
Sampled Date	Feb 02, 2024 11:00 AM
Sample Description	Wastewater
Contract ID	L_EIE_002_2551 **Plot** G-23 **Site** MARC (Thailand) Co.,Ltd.
Date Analysis Commenced	Feb 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	111	≤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	318	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	596	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	65	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทรเบียนเลขที่ ว-323-ล-0005

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Technical Management Narumon Banchongkit, Supervisor, ทรเบียนเลขที่ ว-323-ล-9445
Approved by Dej Changchon, Senior Manager, ทรเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248577
Date Received : Feb 06, 2024
Date Reported : Feb 12, 2024
Report Number : 2893281-1

Sample Number	248577-1
Sampled Date	Feb 06, 2024 1:55 PM
Sample Description	Wastewater
Contract ID	L_EIE_010_2550 **Plot** G-03 **Site** MCLS Asia Co.,Ltd.
Date Analysis Commenced	Feb 06, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	97.7	≤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	285	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	2816	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	94	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทรเบียนเลขที่ ว-323-ล-0005

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Technical Management Narumon Banchongkit, Supervisor, ทรเบียนเลขที่ ว-323-ล-9445
Approved by Dej Changchon, Senior Manager, ทรเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Lot ID: 248558

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Feb 02, 2024
Date Reported : Feb 08, 2024
Report Number : 2893226-1

Sample Number	248558-1
Sampled Date	Feb 02, 2024 11:35 AM
Sample Description	Wastewater
Contract ID	L_EIE_025_2550 **Plot** G-43 **Site** MIG Production Co.,Ltd.
Date Analysis Commenced	Feb 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, a lot of solid and some turbid

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	≤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	62	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1256	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	25	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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

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

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

Analysis / Test Report

TESTING
No.0042

Lot ID: 248614

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Feb 02, 2024
Date Reported : Feb 09, 2024
Report Number : 2893336-1

Sample Number	248614-1
Sampled Date	Feb 02, 2024 9:40 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2550 **Plot** G-72 **Site** NS BlueScope (Thailand) Limited.
Date Analysis Commenced	Feb 02, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

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	≤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	54	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	6.9	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1056	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005 , Thanasoun Namakunna ทะเบียนเลขที่ ว-204-ล-8592

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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-ล-9445

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

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

Analysis / Test Report

TESTING
No.0009

Lot ID: 248614

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Feb 02, 2024
Date Reported : Feb 09, 2024
Report Number : 2893336-2

Sample Number	248614-1
Sampled Date	Feb 02, 2024 9:40 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2550 **Plot** G-72 **Site** NS BlueScope (Thailand) Limited.
Date Analysis Commenced	Feb 05, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
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

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005 , Thanasoun Namakunna ทะเบียนเลขที่ ว-204-ล-8592

Remark :
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Technical Management
Sawitree Noisangiam
Manager
ทะเบียนเลขที่ ว-204-ล-4709

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

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

Analysis / Test Report

TESTING
No.0009

Lot ID: 248614

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Feb 02, 2024
Date Reported : Feb 09, 2024
Report Number : 2893336-3

Sample Number	248614-1
Sampled Date	Feb 02, 2024 9:40 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2550 **Plot** G-72 **Site** NS BlueScope (Thailand) Limited.
Date Analysis Commenced	Feb 05, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Iron	mg/L	0.003	0.005	1.06	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui , Thanasoun Namakunna

Remark :
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Approved by
Sawitree Noisangiam
Manager

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

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248611
Date Received : Feb 06, 2024
Date Reported : Feb 12, 2024
Report Number : 2893329-1

Sample Number	248611-1
Sampled Date	Feb 06, 2024 11:00 AM
Sample Description	Wastewater
Contract ID	L_EIE_020_2550 **Plot** G-56 - G-66,68 **Site** NS-Siam United Steel Co.,Ltd.
Location	Factory 1
Date Analysis Commenced	Feb 06, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	6.7	≤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	47	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Temperature *	Degree C	-	-	36.7	≤45	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	580	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	12	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005 , Thanasoun Namakunna ทะเบียนเลขที่ ว-204-ล-8592

Remark :
- LOD : Limit of Detection

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248611
Date Received : Feb 06, 2024
Date Reported : Feb 12, 2024
Report Number : 2893329-1

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

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

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

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Life Sciences www.alsglobal.com
RIGHT SOLUTIONS RIGHT PARTNER
5317-142J EMAIL S:\Reports_All_GL.rpt (10:13PM)

Analysis / Test Report

TESTING
No.0009

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248611
Date Received : Feb 06, 2024
Date Reported : Feb 13, 2024
Report Number : 2893329-2

Sample Number	248611-1
Sampled Date	Feb 06, 2024 11:00 AM
Sample Description	Wastewater
Contract ID	L_EIE_020_2550 **Plot** G-56 - G-66,68 **Site** NS-Siam United Steel Co.,Ltd.
Location	Factory 1
Date Analysis Commenced	Feb 07, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Iron	mg/L	0.003	0.005	0.91	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui , Thanasoun Namakunna

Remark :
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Approved by
Sawitree Noisangiam
Manager

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248612
Date Received : Feb 06, 2024
Date Reported : Feb 12, 2024
Report Number : 2893332-1

Sample Number	248612-1
Sampled Date	Feb 06, 2024 11:30 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2556 **Plot** G-67 **Site** Ns-Siam United Steel Co.,Ltd.
Location	Factory 2
Date Analysis Commenced	Feb 06, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.3	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	472	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	6	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005 , Thanasoun Namakunna ทะเบียนเลขที่ ว-204-ล-8592

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

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

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Analysis / Test Report

TESTING
No.0009

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248612
Date Received : Feb 06, 2024
Date Reported : Feb 13, 2024
Report Number : 2893332-2

Sample Number	248612-1
Sampled Date	Feb 06, 2024 11:30 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2556 **Plot** G-67 **Site** Ns-Siam United Steel Co.,Ltd.
Location	Factory 2
Date Analysis Commenced	Feb 07, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Zinc	mg/L	0.003	0.005	0.68	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005 , Thanasoun Namakunna ทะเบียนเลขที่ ว-204-ล-8592

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

Technical Management Sawitree N.
Sawitree Noisangiam
Manager
ทะเบียนเลขที่ ว-204-ล-4709

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248579
Date Received : Feb 05, 2024
Date Reported : Feb 12, 2024
Report Number : 2893283-1

Sample Number	248579-1
Sampled Date	Feb 05, 2024 1:55 PM
Sample Description	Wastewater
Contract ID	L_EIE_002_2554 **Plot** H-12 **Site** PTT Asahi Chemical Co.,Ltd.
Date Analysis Commenced	Feb 05, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

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	≤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	28	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	6.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1880	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	11	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-ล-9460

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Technical Management N.Bamphit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248568
Date Received : Feb 08, 2024
Date Reported : Feb 14, 2024
Report Number : 2893250-1

Sample Number	248568-1
Sampled Date	Feb 08, 2024 10:25 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2554 **Plot** G-02,03 **Site** PTT Global Chemical Public Company Limited. (EA Plant)
Date Analysis Commenced	Feb 08, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.3	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	260	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	7	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management N.Bamphit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248603
Date Received :Feb 08, 2024
Date Reported :Feb 15, 2024
Report Number :2893316-1

Sample Number	248603-1
Sampled Date	Feb 08, 2024 10:40 AM
Sample Description	Wastewater
Contract ID	L_EIE_023_2550 **Plot** G-02-02A-03 **Site** PTT Global Chemical Public Company Limited. (EG Plant)
Date Analysis Commenced	Feb 08, 2024
Condition of Sample	Contained in two amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
BOD (5 days at 20 Degree C)	mg/L	-	2.0	16.9	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	79	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Formaldehyde	mg/L	0.03	0.1	<0.1	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Oil & Grease	mg/L	-	3	<3	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	732	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	13	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management N.Bamphit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248603
Date Received :Feb 08, 2024
Date Reported :Feb 15, 2024
Report Number :2893316-2

Sample Number	248603-1
Sampled Date	Feb 08, 2024 10:40 AM
Sample Description	Wastewater
Contract ID	L_EIE_023_2550 **Plot** G-02-02A-03 **Site** PTT Global Chemical Public Company Limited. (EG Plant)
Date Analysis Commenced	Feb 10, 2024
Condition of Sample	Contained in two amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
Chloride as Cl2	mg/L	0.5	1	130	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (B)	Rayong

Sampling By : Sansoen Khuiyoksui

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Approved by
Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248605
Date Received : Feb 02, 2024
Date Reported : Feb 09, 2024
Report Number : 2893324-1

Sample Number	248605-1
Sampled Date	Feb 02, 2024 11:25 AM
Sample Description	Wastewater
Contract ID	L_EIE_001_2553 **Plot** H-29 **Site** PTT Global Chemical Public Company Limited.
Date Analysis Commenced	Feb 02, 2024
Condition of Sample	Contained in two amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	102	≤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	243	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Formaldehyde	mg/L	0.03	0.1	<0.1	≤1	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	292	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	24	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

Remark :
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Technical Management
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ส-9445

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248605
Date Received : Feb 02, 2024
Date Reported : Feb 09, 2024
Report Number : 2893324-1

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

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248585
Date Received : Feb 06, 2024
Date Reported : Feb 12, 2024
Report Number : 2893306-1

Sample Number	248585-1
Sampled Date	Feb 06, 2024 9:50 AM
Sample Description	Wastewater
Contract ID	L_WHA EIE_002_2563 **Plot** G.18/2, G.20/1, H.28/1, H.34/1, PW18/1, PW.19, PW.20 **Site** PTT Global Chemical Public Company Limited.
Location	จุดที่ 1
Date Analysis Commenced	Feb 06, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	41	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	968	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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.

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248585
Date Received : Feb 06, 2024
Date Reported : Feb 12, 2024
Report Number : 2893306-1

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

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

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

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www.alsglobal.com

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248599
Date Received : Feb 06, 2024
Date Reported : Feb 12, 2024
Report Number : 2893309-1

Sample Number	248599-1						
Sampled Date	Feb 06, 2024 9:55 AM						
Sample Description	Wastewater						
Contract ID	L_WHA EIE_003_2563	**Plot**	G.18/2, G.20/1, H.28/1, H.34/1, PW18/1, PW.19, PW.20	**Site**	PTT Global Chemical Public Company Limited		
Location	จุดที่ 2						
Date Analysis Commenced	Feb 06, 2024						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)						
Physical Property	Yellow, some odour, solid and no turbid						

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	≤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	<25	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	10360	(1)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	16	≤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).
(1) Total Dissolved Solids when discharged to receiving water having TDS > 3,000 mg/L, TDS in the to-be-discharged wastewater can exceed the TDS already found in the receiving water by not higher than 5,000 mg/L.
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

Remark :
- LOD : Limit of Detection

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248599
Date Received : Feb 06, 2024
Date Reported : Feb 12, 2024
Report Number : 2893309-1

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

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248591
Date Received : Feb 05, 2024
Date Reported : Feb 12, 2024
Report Number : 2893275-1

Sample Number	248591-1						
Sampled Date	Feb 05, 2024 9:40 AM						
Sample Description	Wastewater						
Contract ID	L_EIE_001_2552	**Plot**	H-20-22	**Site**	PTT Global Chemical Public Company Limited		
Location	Station-1 (Admin)						
Date Analysis Commenced	Feb 05, 2024						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)						
Physical Property	Yellow, a lot of odour, some solid and turbid						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	17.2	≤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	106	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.1	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	300	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	14	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-ล-9460

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-ล-9445

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248608
Date Received : Feb 05, 2024
Date Reported : Feb 12, 2024
Report Number : 2893327-1

Sample Number	248608-1
Sampled Date	Feb 05, 2024 9:20 AM
Sample Description	Wastewater
Contract ID	L_EIE_002_2552 **Plot** H-20-22 **Site** PTT Global Chemical Public Company Limited
Location	Station-2 (Factory)
Date Analysis Commenced	Feb 05, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	12.0	≤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	66	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	9040	(1)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	20	≤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).
(1) Total Dissolved Solids when discharged to receiving water having TDS > 3,000 mg/L, TDS in the to-be-discharged wastewater can exceed the TDS already found in the receiving water by not higher than 5,000 mg/L.
Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-ส-9460

Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ส-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248608
Date Received : Feb 05, 2024
Date Reported : Feb 12, 2024
Report Number : 2893327-1

Remark :
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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ส-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248590
Date Received : Feb 05, 2024
Date Reported : Feb 12, 2024
Report Number : 2893274-1

Sample Number	248590-1
Sampled Date	Feb 05, 2024 9:30 AM
Sample Description	Wastewater
Contract ID	L_EIE_004_2553 **Plot** H-23A,H-31 **Site** PTT Global Chemical Public Company Limited
Location	Bis-Phenol A
Date Analysis Commenced	Feb 05, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	29	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	600	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-ส-9460

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

Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ส-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248595
Date Received : Feb 05, 2024
Date Reported : Feb 12, 2024
Report Number : 2893310-1

Sample Number	248595-1
Sampled Date	Feb 05, 2024 11:40 AM
Sample Description	Wastewater
Contract ID	L_WHA EIE_004_2563 **Plot** H.13/1 **Site** Quechen Silica (Thailand) Co.,Ltd.
Location	Domestic wastewater
Date Analysis Commenced	Feb 05, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and turbid

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	≤200	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	<25	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.3	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	280	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	10	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-ส-9460

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

Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ส-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248573
Date Received : Feb 02, 2024
Date Reported : Feb 09, 2024
Report Number : 2893268-1

Sample Number	248573-1
Sampled Date	Feb 02, 2024 9:50 AM
Sample Description	Wastewater
Contract ID	L_EIE_005_2550 **Plot** G-71 **Site** Rockwool (Thailand) Limited.
Date Analysis Commenced	Feb 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	225	≤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	528	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	9	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	508	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	77	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sanseen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

Remark :
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- 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-ส-9445
Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248615
Date Received : Feb 05, 2024
Date Reported : Feb 12, 2024
Report Number : 2893338-1

Sample Number	248615-1
Sampled Date	Feb 05, 2024 3:15 PM
Sample Description	Wastewater
Contract ID	L_EIE_001_2558 **Plot** H-15 **Site** S and L Specialty Polymers Co.,Ltd.
Location	Station 1
Date Analysis Commenced	Feb 05, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

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	≤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	30	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	8.6	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	34.0	≤45	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	636	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	10	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-ส-9460

Remark :
- LOD : Limit of Detection

Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ส-9445
Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248615
Date Received : Feb 05, 2024
Date Reported : Feb 12, 2024
Report Number : 2893338-1

- "<" : 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, ทะเบียนเลขที่ ว-323-ส-9445
Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248617
Date Received : Feb 05, 2024
Date Reported : Feb 12, 2024
Report Number : 2893342-1

Sample Number	248617-1
Sampled Date	Feb 05, 2024 3:20 PM
Sample Description	Wastewater
Contract ID	L_EIE_002_2558 **Plot** H-15 **Site** S and L Specialty Polymers Co.,Ltd.
Location	Station 2
Date Analysis Commenced	Feb 05, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	8.1	≤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	79	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.1	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	37.4	≤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	28150	(1)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	13	≤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).
(1) Total Dissolved Solids when discharged to receiving water having TDS > 3,000 mg/L, TDS in the to-be-discharged wastewater can exceed the TDS already found in the receiving water by not higher than 5,000 mg/L.
Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-ส-9460

Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ส-9445
Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248617
Date Received : Feb 05, 2024
Date Reported : Feb 12, 2024
Report Number : 2893342-1

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-ก-9445

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

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www.alsglobal.com

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248616
Date Received : Feb 05, 2024
Date Reported : Feb 12, 2024
Report Number : 2893343-1

Sample Number	248616-1
Sampled Date	Feb 05, 2024 10:00 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2558 **Plot** H-45 **Site** SEKISUI SPECIALTY CHEMICALS (THAILAND) Co.,Ltd.
Date Analysis Commenced	Feb 05, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	32.5	≤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	66	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Temperature *	Degree C	-	-	31.3	≤45	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	360	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	16	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-ก-9460

Remark :
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Technical Management
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ก-9445

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248616
Date Received : Feb 05, 2024
Date Reported : Feb 12, 2024
Report Number : 2893343-1

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

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248565
Date Received : Feb 02, 2024
Date Reported : Feb 09, 2024
Report Number : 2893244-1

Sample Number	248565-1
Sampled Date	Feb 02, 2024 2:10 PM
Sample Description	Wastewater
Contract ID	L_EIE_013_2550 **Plot** G-10 **Site** Siam Stabilizers & Chemicals Co.,Ltd.
Date Analysis Commenced	Feb 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	145	≤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	400	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	7	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	468	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	104	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ก-0005

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-ก-9445

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248606
Date Received : Feb 02, 2024
Date Reported : Feb 09, 2024
Report Number : 2893295-1

Sample Number	248606-1
Sampled Date	Feb 02, 2024 3:10 PM
Sample Description	Wastewater
Contract ID	L_EIE_026_2550 **Plot** G-05 **Site** Thai Ethoxylate Co.,Ltd.
Date Analysis Commenced	Feb 02, 2024
Condition of Sample	Contained in two amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and a lot of turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	35.1	≤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	141	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Formaldehyde	mg/L	0.03	0.1	Not Detected	≤1	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	248	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	25	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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-ส-9445
Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248606
Date Received : Feb 02, 2024
Date Reported : Feb 09, 2024
Report Number : 2893295-1

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

Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ส-9445
Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248578
Date Received : Feb 06, 2024
Date Reported : Feb 12, 2024
Report Number : 2893282-1

Sample Number	248578-1
Sampled Date	Feb 06, 2024 3:05 PM
Sample Description	Wastewater
Contract ID	L_EIE_016_2550 **Plot** G-51 **Site** Thai Pet Resin Co.,Ltd.
Location	Station-1
Date Analysis Commenced	Feb 06, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, a lot of solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	27.4	≤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	117	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	928	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	107	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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-ส-9445
Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ส-9442

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Life Sciences www.alsglobal.com
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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248604
Date Received : Feb 02, 2024
Date Reported : Feb 09, 2024
Report Number : 2893317-1

Sample Number	248604-1
Sampled Date	Feb 02, 2024 2:45 PM
Sample Description	Wastewater
Contract ID	L_EIE_021_2550 **Plot** G-04 **Site** Vanachai Chemical Industries Co.,Ltd.
Date Analysis Commenced	Feb 02, 2024
Condition of Sample	Contained in two amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Formaldehyde	mg/L	0.03	0.1	Not Detected	≤1	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	208	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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.

Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ส-9445
Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ส-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 the report is not reproduced except in full.

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248604
Date Received : Feb 02, 2024
Date Reported : Feb 09, 2024
Report Number : 2893317-1

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

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248583
Date Received : Feb 02, 2024
Date Reported : Feb 09, 2024
Report Number : 2893290-1

Sample Number	248583-1
Sampled Date	Feb 02, 2024 10:50 AM
Sample Description	Wastewater
Contract ID	L_EIE_004_2558 **Plot** G.18 G.19 P.7 **Site** Vencorex (Thailand) Co.,Ltd.
Date Analysis Commenced	Feb 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	424	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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-ล-9445

Approved by
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-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 : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248589
Date Received :Feb 02, 2024
Date Reported :Feb 09, 2024
Report Number :2893234-1

Sample Number	248589-1
Sampled Date	Feb 02, 2024 1:45 PM
Sample Description	Wastewater
Contract ID	L_EIE_022_2550 **Plot** G-01 **Site** Zeon Chemical (Thailand) Co.,Ltd.
Date Analysis Commenced	Feb 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
BOD (5 days at 20 Degree C)	mg/L	-	2.0	20.2	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	1.5	25	156	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.6	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	7160	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	13	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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
ทะเบียนเลขที่ ว-323-ล-9445

Approved by
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-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 : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 248594
Date Received : Feb 05, 2024
Date Reported : Feb 12, 2024
Report Number : 2893299-1

Sample Number	248594-1
Sampled Date	Feb 05, 2024 10:15 AM
Sample Description	Wastewater
Contract ID	L_WHA EIE_001_2563 **Plot** H-49 **Site** Zeon Chemicals Asia Co.,Ltd.
Date Analysis Commenced	Feb 05, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	13.9	≤200	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	97	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1932	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	24	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-ล-9460

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-ล-9445

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2420991
Date Received : Mar 04, 2024
Date Reported : Mar 11, 2024
Report Number : 2919520-1

Sample Number	2420991-1
Sampled Date	Mar 04, 2024 9:50 AM
Sample Description	Wastewater
Contract ID	L_EIE_001_2556 **Plot** G-69,G-70 **Site** Aditya Birla Chemicals (Thailand) Ltd. (Advanced Materials)
Date Analysis Commenced	Mar 04, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	72.3	≤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	412	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	348	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	82	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-ล-9457

Remark :
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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2420987
Date Received : Mar 08, 2024
Date Reported : Mar 13, 2024
Report Number : 2919511-1

Sample Number	2420987-1
Sampled Date	Mar 08, 2024 2:29 PM
Sample Description	Wastewater
Contract ID	L_EIE_018_2550 **Plot** G-08 **Site** AGC Vinythai Public Company Limited
Date Analysis Commenced	Mar 08, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	38.7	≤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	165	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	524	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	22	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Nattawut Athomprommarat ทะเบียนเลขที่ ว-323-ล-0006

Remark :
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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2421032
Date Received : Mar 08, 2024
Date Reported : Mar 13, 2024
Report Number : 2921068-1

Sample Number	2421032-1
Sampled Date	Mar 08, 2024 2:41 PM
Sample Description	Wastewater
Contract ID	L_EIE_002_2566 **Plot** G-15 to G-17 **Site** AGC Vinythai Public Company Limited
Date Analysis Commenced	Mar 08, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	11.2	≤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	58	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	316	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	17	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Nattawut Athomprommarat ทะเบียนเลขที่ ว-323-ล-0006

Remark :
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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2420978
Date Received : Mar 05, 2024
Date Reported : Mar 11, 2024
Report Number : 2919467-1

Sample Number	2420978-1
Sampled Date	Mar 05, 2024 3:25 PM
Sample Description	Wastewater
Contract ID	L_EIE_014_2550 **Plot** G-35 **Site** Allnex (Thailand) Ltd.
Date Analysis Commenced	Mar 05, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	70.2	≤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	233	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	268	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	12	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

Remark :
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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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ADDRESS 616/10 Moo 5 T. Maenam Khu A. Pluakdaeng Rayong 21140 Thailand PHONE +66 0 3304 8555 FAX +66 0 3304 8556
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company
www.alsglobal.com

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2420979
Date Received : Mar 04, 2024
Date Reported : Mar 11, 2024
Report Number : 2919469-1

Sample Number	2420979-1
Sampled Date	Mar 04, 2024 10:15 AM
Sample Description	Wastewater
Contract ID	L_EIE_001_2550 **Plot** G-29 **Site** Arakawa Chemical (Thailand) Ltd.
Date Analysis Commenced	Mar 04, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	31.0	≤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	118	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	4	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	372	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	18	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-ล-9457

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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ล-9445

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2420980
Date Received : Mar 04, 2024
Date Reported : Mar 11, 2024
Report Number : 2919471-1

Sample Number	2420980-1
Sampled Date	Mar 04, 2024 1:40 PM
Sample Description	Wastewater
Contract ID	L_EIE_002_2550 **Plot** G-09 **Site** Asia Petroleum Thailand Co.,Ltd.
Date Analysis Commenced	Mar 04, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	78	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	100	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	6	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-ล-9457

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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ล-9445

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2420998
Date Received : Mar 04, 2024
Date Reported : Mar 11, 2024
Report Number : 2919562-1

Sample Number	2420998-1
Sampled Date	Mar 04, 2024 10:50 AM
Sample Description	Wastewater
Contract ID	L_EIE_002_2556 **Plot** H-37 **Site** Bangkok Industrial Gas Company Limited.
Date Analysis Commenced	Mar 04, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

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	≤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	34	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	6.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	544	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	6	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-ล-9457

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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ล-9445

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2421000
Date Received : Mar 08, 2024
Date Reported : Mar 13, 2024
Report Number : 2919565-1

Sample Number	2421000-1
Sampled Date	Mar 08, 2024 11:06 AM
Sample Description	Wastewater
Contract ID	L_EIE_004_2550 **Plot** G-37 **Site** Carbide Chemical (Thailand) Ltd.
Location	Inspection manhole
Date Analysis Commenced	Mar 08, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	304	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Nattawut Athomprommarat ทะเบียนเลขที่ ว-323-ล-0006

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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ล-9445

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2421031

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Mar 08, 2024
Date Reported : Mar 13, 2024
Report Number : 2921067-1

Sample Number	2421031-1
Sampled Date	Mar 08, 2024 10:24 AM
Sample Description	Wastewater
Contract ID	L_EIE_001_2566 **Plot** G-1/1 **Site** E-COATINGS ASIA COMPANY LIMITED
Date Analysis Commenced	Mar 08, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and a lot of turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	17.2	≤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	99	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *	-	-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	300	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	124	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Nattawut Athompromarat ทะเบียนเลขที่ ว-323-ล-0006

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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2421004

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Mar 07, 2024
Date Reported : Mar 13, 2024
Report Number : 2921053-1

Sample Number	2421004-1
Sampled Date	Mar 07, 2024 1:45 PM
Sample Description	Wastewater
Contract ID	L_WHA EIE_006_2563 **Plot** G.77, G.77/1, H.42, H.44 **Site** GC Polyols Company Limited
Date Analysis Commenced	Mar 07, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	28	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *	-	-	-	7.3	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	708	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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

Analysis / Test Report

TESTING
No.0042

Lot ID: 2420994

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Mar 05, 2024
Date Reported : Mar 11, 2024
Report Number : 2919555-1

Sample Number	2420994-1
Sampled Date	Mar 05, 2024 2:00 PM
Sample Description	Wastewater
Contract ID	L_EIE_001_2551 **Plot** G-06A **Site** Global Green Chemicals Co.,Ltd.
Date Analysis Commenced	Mar 05, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	41.1	≤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	190	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *	-	-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1064	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	55	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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

Analysis / Test Report

TESTING
No.0042

Lot ID: 2420989

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Mar 05, 2024
Date Reported : Mar 11, 2024
Report Number : 2919517-1

Sample Number	2420989-1
Sampled Date	Mar 05, 2024 3:08 PM
Sample Description	Wastewater
Contract ID	L_EIE_024_2550 **Plot** G-76 **Site** Global Power Synergy Co.,Ltd.
Location	CUP-1
Date Analysis Commenced	Mar 05, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *	-	-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	216	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	25	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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

Analysis / Test Report

TESTING
No.0042

Lot ID: 2420988

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Mar 05, 2024
Date Reported : Mar 11, 2024
Report Number : 2919514-1

Sample Number	2420988-1
Sampled Date	Mar 05, 2024 2:35 PM
Sample Description	Wastewater
Contract ID	L_EIE_002_2553 **Plot** H-17 **Site** Global Power Synergy Co.,Ltd.
Location	CUP-3
Date Analysis Commenced	Mar 05, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	38	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	776	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	6	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ล-9445

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2421019

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Mar 05, 2024
Date Reported : Mar 11, 2024
Report Number : 2919575-1

Sample Number	2421019-1
Sampled Date	Mar 05, 2024 9:50 AM
Sample Description	Wastewater
Contract ID	L_EIE_002_2561 **Plot** H.52A **Site** Iharanikkei Chemical (Thailand) Co.,Ltd.
Date Analysis Commenced	Mar 05, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	7.3	≤200	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	30	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	316	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	8	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

Remark :
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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ล-9445

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2420975

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Mar 04, 2024
Date Reported : Mar 11, 2024
Report Number : 2919454-1

Sample Number	2420975-1
Sampled Date	Mar 04, 2024 10:05 AM
Sample Description	Wastewater
Contract ID	L_EIE_005_2552 **Plot** G-30 **Site** KLJ Organic (Thailand) Ltd.
Date Analysis Commenced	Mar 04, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	140	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-ล-9457

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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ล-9445

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2421023

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Mar 08, 2024
Date Reported : Mar 13, 2024
Report Number : 2921066-1

Sample Number	2421023-1
Sampled Date	Mar 08, 2024 9:52 AM
Sample Description	Wastewater
Contract ID	L_EIE_002_2565 **Plot** H.13a, H.13e, PW.27-1, H.47b **Site** Kuraray Advanced chemicals(Thailand) Co.,Ltd.
Date Analysis Commenced	Mar 08, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	17.8	≤200	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	61	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	58	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	6	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Nattawut Athomprommarat ทะเบียนเลขที่ ว-323-ล-0006

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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ล-9445

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
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P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2421022
Date Received : Mar 08, 2024
Date Reported : Mar 13, 2024
Report Number : 2921065-1

Sample Number	2421022-1
Sampled Date	Mar 08, 2024 9:38 AM
Sample Description	Wastewater
Contract ID	L_EIE_001_2565 **Plot** PW.28, PW.31, H.47a, H.47c, H.51 **Site** Kuraray GC Advanced Materials Co.,Ltd. (North)
Date Analysis Commenced	Mar 08, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and no turbid

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	≤200	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	58	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *	-	-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1348	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Nattawut Athomprommarat ทะเบียนเลขที่ ว-323-ส-0006

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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ส-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2420985
Date Received : Mar 04, 2024
Date Reported : Mar 11, 2024
Report Number : 2919484-1

Sample Number	2420985-1
Sampled Date	Mar 04, 2024 2:15 PM
Sample Description	Wastewater
Contract ID	L_EIE_015_2550 **Plot** G-14 **Site** Linde (Thailand) PLC.
Date Analysis Commenced	Mar 04, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	8.3	≤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	41	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *	-	-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	144	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	13	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-ส-9457

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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ส-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2420999
Date Received : Mar 07, 2024
Date Reported : Mar 13, 2024
Report Number : 2919563-1

Sample Number	2420999-1
Sampled Date	Mar 07, 2024 2:40 PM
Sample Description	Wastewater
Contract ID	L_EIE_004_2556 **Plot** H-10 , H-11 **Site** Linde (Thailand) Public Company Limited.
Date Analysis Commenced	Mar 07, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	37	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *	-	-	-	6.9	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	892	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ส-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2420976
Date Received : Mar 04, 2024
Date Reported : Mar 11, 2024
Report Number : 2919462-1

Sample Number	2420976-1
Sampled Date	Mar 04, 2024 10:35 AM
Sample Description	Wastewater
Contract ID	L_EIE_002_2551 **Plot** G-23 **Site** MARC (Thailand) Co.,Ltd.
Date Analysis Commenced	Mar 04, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	44.9	≤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	179	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	4	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *	-	-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	364	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	38	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-ส-9457

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

Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ส-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2420995
Date Received : Mar 05, 2024
Date Reported : Mar 11, 2024
Report Number : 2919558-1

Sample Number	2420995-1
Sampled Date	Mar 05, 2024 10:50 AM
Sample Description	Wastewater
Contract ID	L_EIE_010_2550 **Plot** G-03 **Site** MCLS Asia Co.,Ltd.
Date Analysis Commenced	Mar 05, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	109	≤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	440	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	2392	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	135	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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-ล-9445
Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2420982
Date Received : Mar 04, 2024
Date Reported : Mar 11, 2024
Report Number : 2919477-1

Sample Number	2420982-1
Sampled Date	Mar 04, 2024 2:05 PM
Sample Description	Wastewater
Contract ID	L_EIE_011_2550 **Plot** G-12 **Site** Mechema Chemical Co.,Ltd.
Date Analysis Commenced	Mar 04, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	8.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	118	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-ล-9457

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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ล-9445
Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2420974
Date Received : Mar 04, 2024
Date Reported : Mar 11, 2024
Report Number : 2919453-1

Sample Number	2420974-1
Sampled Date	Mar 04, 2024 11:15 AM
Sample Description	Wastewater
Contract ID	L_EIE_025_2550 **Plot** G-43 **Site** MIG Production Co.,Ltd.
Date Analysis Commenced	Mar 04, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

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	≤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	66	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1524	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	6	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-ล-9457

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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ล-9445
Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2421045
Date Received : Mar 04, 2024
Date Reported : Mar 11, 2024
Report Number : 2921060-1

Sample Number	2421045-1
Sampled Date	Mar 04, 2024 9:30 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2550 **Plot** G-72 **Site** NS BlueScope (Thailand) Limited.
Date Analysis Commenced	Mar 04, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	14.9	≤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	75	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.1	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1880	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	13	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-ล-9457 , Pattarapol Sawangjaitam ทะเบียนเลขที่ ว-204-ล-0002

Remark :
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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ล-9445
Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0009

Lot ID: 2421045

Date Received : Mar 04, 2024
Date Reported : Mar 11, 2024
Report Number : 2921060-2

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Sample Number	2421045-1
Sampled Date	Mar 04, 2024 9:30 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2550 **Plot** G-72 **Site** NS BlueScope (Thailand) Limited.
Date Analysis Commenced	Mar 05, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Zinc	mg/L	0.003	0.005	0.03	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-ล-9457 , Pattarapol Sawangjaitam ทะเบียนเลขที่ ว-204-ล-0002

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Technical Management Sawitree N.
Sawitree Noisangiam
Manager
ทะเบียนเลขที่ ว-204-ล-0007

Approved by Kanokkorn Anek
Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ล-0004

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Analysis / Test Report

TESTING
No.0009

Lot ID: 2421045

Date Received : Mar 04, 2024
Date Reported : Mar 11, 2024
Report Number : 2921060-3

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Page 1 of 1

Sample Number	2421045-1
Sampled Date	Mar 04, 2024 9:30 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2550 **Plot** G-72 **Site** NS BlueScope (Thailand) Limited.
Date Analysis Commenced	Mar 05, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Iron	mg/L	0.003	0.005	2.72	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Wanlop Hunchainaow , Pattarapol Sawangjaitam

Remark :
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Approved by Sawitree N.
Sawitree Noisangiam
Manager

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2421042

Date Received : Mar 05, 2024
Date Reported : Mar 12, 2024
Report Number : 2921058-1

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Sample Number	2421042-1
Sampled Date	Mar 05, 2024 11:20 AM
Sample Description	Wastewater
Contract ID	L_EIE_020_2550 **Plot** G-56 - G-66,68 **Site** NS-Siam United Steel Co.,Ltd.
Location	Factory 1
Date Analysis Commenced	Mar 05, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	10.5	≤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	40	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.1	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	36.5	≤45	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	772	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	15	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005 , Pattarapol Sawangjaitam ทะเบียนเลขที่ ว-204-ล-0002

Remark :
- LOD : Limit of Detection

Technical Management Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9446

Approved by D. Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2421042

Date Received : Mar 05, 2024
Date Reported : Mar 12, 2024
Report Number : 2921058-1

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Page 2 of 2

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Technical Management Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9446

Approved by D. Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0009

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2421042
Date Received : Mar 05, 2024
Date Reported : Mar 12, 2024
Report Number : 2921058-2

Sample Number	2421042-1
Sampled Date	Mar 05, 2024 11:20 AM
Sample Description	Wastewater
Contract ID	L_EIE_020_2550 **Plot** G-56 - G-66,68 **Site** NS-Siam United Steel Co.,Ltd.
Location	Factory 1
Date Analysis Commenced	Mar 06, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Iron	mg/L	0.003	0.005	0.92	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui , Pattarapol Sawangjaitam

Remark :
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Approved by Sawitree N.
Sawitree Noisangiam
Manager

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2421043
Date Received : Mar 05, 2024
Date Reported : Mar 12, 2024
Report Number : 2921059-1

Sample Number	2421043-1
Sampled Date	Mar 05, 2024 11:10 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2556 **Plot** G-67 **Site** Ns-Siam United Steel Co.,Ltd.
Location	Factory 2
Date Analysis Commenced	Mar 05, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	452	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005 , Pattarapol Sawangjaitam ทะเบียนเลขที่ ว-204-ส-0002

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 Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ส-9446

Approved by D. Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-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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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Analysis / Test Report

TESTING
No.0009

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2421043
Date Received : Mar 05, 2024
Date Reported : Mar 12, 2024
Report Number : 2921059-2

Sample Number	2421043-1
Sampled Date	Mar 05, 2024 11:10 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2556 **Plot** G-67 **Site** Ns-Siam United Steel Co.,Ltd.
Location	Factory 2
Date Analysis Commenced	Mar 06, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Zinc	mg/L	0.003	0.005	0.42	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005 , Pattarapol Sawangjaitam ทะเบียนเลขที่ ว-204-ส-0002

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 N.
Sawitree Noisangiam
Manager
ทะเบียนเลขที่ ว-204-ส-0007

Approved by Kanokkorn Anek
Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ส-0004

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

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2420997
Date Received : Mar 07, 2024
Date Reported : Mar 13, 2024
Report Number : 2919561-1

Sample Number	2420997-1
Sampled Date	Mar 07, 2024 2:10 PM
Sample Description	Wastewater
Contract ID	L_EIE_002_2554 **Plot** H-12 **Site** PTT Asahi Chemical Co.,Ltd.
Date Analysis Commenced	Mar 07, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	32	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	6.9	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1744	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

Remark :
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- 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 N. Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ส-9445

Approved by D. Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-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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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2421036
Date Received : Mar 04, 2024
Date Reported : Mar 11, 2024
Report Number : 2921056-1

Sample Number	2421036-1
Sampled Date	Mar 04, 2024 10:55 AM
Sample Description	Wastewater
Contract ID	L_EIE_001_2553 **Plot** H-29 **Site** PTT Global Chemical Public Company Limited.
Date Analysis Commenced	Mar 04, 2024
Condition of Sample	Contained in two amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	39.6	≤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	124	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Formaldehyde	mg/L	0.03	0.1	<0.1	≤1	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	220	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	18	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-ล-9457

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-ล-9445

Approved by
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-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.

Analysis / Test Report
TESTING
No.0042
Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE
Lot ID: 2421036
Date Received : Mar 04, 2024
Date Reported : Mar 11, 2024
Report Number : 2921056-1

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

Technical Management
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445
Approved by
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442
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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2421003
Date Received : Mar 05, 2024
Date Reported : Mar 11, 2024
Report Number : 2919584-1

Sample Number	2421003-1
Sampled Date	Mar 05, 2024 9:15 AM
Sample Description	Wastewater
Contract ID	L_WHA EIE_002_2563 **Plot** G.18/2, G.20/1, H.28/1, H.34/1, PW18/1, PW.19, PW.20 **Site** PTT Global Chemical Public Company Limited
Location	จุดที่ 1
Date Analysis Commenced	Mar 05, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	22.0	≤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	104	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.1	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	740	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	18	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-ล-9457

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-ล-9445
Approved by
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442
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Analysis / Test Report
TESTING
No.0042
Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE
Lot ID: 2421003
Date Received : Mar 05, 2024
Date Reported : Mar 11, 2024
Report Number : 2919584-1

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

Technical Management
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445
Approved by
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442
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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2421025
Date Received : Mar 05, 2024
Date Reported : Mar 12, 2024
Report Number : 2919586-1

Sample Number	2421025-1
Sampled Date	Mar 05, 2024 9:25 AM
Sample Description	Wastewater
Contract ID	L_WHA EIE_003_2563 **Plot** G.18/2, G.20/1, H.28/1, H.34/1, PW18/1, PW.19, PW.20 **Site** PTT Global Chemical Public Company Limited
Location	จดที่ 2
Date Analysis Commenced	Mar 05, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

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	≤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	<25	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	168	(1)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤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).
(1) Total Dissolved Solids when discharged to receiving water having TDS > 3,000 mg/L, TDS in the to-be-discharged wastewater can exceed the TDS already found in the receiving water by not higher than 5,000 mg/L.
Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-ส-9457

Remark :
- LOD : Limit of Detection

Technical Management Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ส-9446

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-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 : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2421025
Date Received : Mar 05, 2024
Date Reported : Mar 12, 2024
Report Number : 2919586-1

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

Technical Management Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ส-9446

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2422820
Date Received : Mar 07, 2024
Date Reported : Mar 13, 2024
Report Number : 2921111-1

Sample Number	2422820-1
Sampled Date	Mar 07, 2024 10:00 AM
Sample Description	Wastewater
Contract ID	L_EIE_001_2552 **Plot** H-20-22 **Site** PTT Global Chemical Public Company Limited
Location	Station-1 (Admin)
Date Analysis Commenced	Mar 07, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property	Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	88.7	≤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	231	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.1	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	392	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	43	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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 N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ส-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2421041
Date Received : Mar 07, 2024
Date Reported : Mar 14, 2024
Report Number : 2921057-1

Sample Number	2421041-1
Sampled Date	Mar 07, 2024 9:50 AM
Sample Description	Wastewater
Contract ID	L_EIE_002_2552 **Plot** H-20-22 **Site** PTT Global Chemical Public Company Limited
Location	Station-2 (Factory)
Date Analysis Commenced	Mar 07, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	9.4	≤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	44	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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	0.02	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	7560	(1)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	33	≤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).
(1) Total Dissolved Solids when discharged to receiving water having TDS > 3,000 mg/L, TDS in the to-be-discharged wastewater can exceed the TDS already found in the receiving water by not higher than 5,000 mg/L.
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ส-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company
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TESTING
No.0042

Analysis / Test Report

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2421041
Date Received : Mar 07, 2024
Date Reported : Mar 14, 2024
Report Number : 2921057-1

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-ล-9445

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

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Analysis / Test Report

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18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2421018
Date Received : Mar 07, 2024
Date Reported : Mar 13, 2024
Report Number : 2919524-1

Sample Number	2421018-1
Sampled Date	Mar 07, 2024 9:40 AM
Sample Description	Wastewater
Contract ID	L_EIE_004_2553 **Plot** H-23A,H-31 **Site** PTT Global Chemical Public Company Limited
Location	Bis - Phenol A
Date Analysis Commenced	Mar 07, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	28	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	600	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	13	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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
ทะเบียนเลขที่ ว-323-ล-9445

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

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Analysis / Test Report

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2421021
Date Received : Mar 05, 2024
Date Reported : Mar 11, 2024
Report Number : 2919596-1

Sample Number	2421021-1
Sampled Date	Mar 05, 2024 10:30 AM
Sample Description	Wastewater
Contract ID	L_WHA EIE_004_2563 **Plot** H.13/1 **Site** Quechen Silica (Thailand) Co.,Ltd.
Location	Domestic wastewater
Date Analysis Commenced	Mar 05, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

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	≤200	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	<25	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	288	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	6	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

Remark :
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Technical Management
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

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

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P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2420990
Date Received : Mar 04, 2024
Date Reported : Mar 11, 2024
Report Number : 2919519-1

Sample Number	2420990-1
Sampled Date	Mar 04, 2024 9:40 AM
Sample Description	Wastewater
Contract ID	L_EIE_005_2550 **Plot** G-71 **Site** Rockwool (Thailand) Limited.
Date Analysis Commenced	Mar 04, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	234	≤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	561	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	5	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	440	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	73	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-ล-9457

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

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

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No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2421046
Date Received : Mar 07, 2024
Date Reported : Mar 13, 2024
Report Number : 2921061-1

Sample Number	2421046-1
Sampled Date	Mar 07, 2024 10:45 AM
Sample Description	Wastewater
Contract ID	L_EIE_001_2558 **Plot** H-15 **Site** S and L Specialty Polymers Co.,Ltd.
Location	Station 1
Date Analysis Commenced	Mar 07, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	39.3	≤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	86	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.3	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	32.0	≤45	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	252	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	18	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

Remark :
- LOD : Limit of Detection

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

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

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No.0042
Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE
Lot ID: 2421046
Date Received : Mar 07, 2024
Date Reported : Mar 13, 2024
Report Number : 2921061-1

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Technical Management
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445
Approved by
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442
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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2421047
Date Received : Mar 04, 2024
Date Reported : Mar 11, 2024
Report Number : 2921063-1

Sample Number	2421047-1
Sampled Date	Mar 04, 2024 3:15 PM
Sample Description	Wastewater
Contract ID	L_EIE_003_2558 **Plot** H-45 **Site** SEKISUI SPECIALTY CHEMICALS (THAILAND) Co.,Ltd.
Date Analysis Commenced	Mar 04, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	19.7	≤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	57	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Temperature *	Degree C	-	-	32.9	≤45	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	152	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	23	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-ล-9457

Remark :
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Technical Management
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445
Approved by
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442
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Analysis / Test Report
TESTING
No.0042
Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE
Lot ID: 2421047
Date Received : Mar 04, 2024
Date Reported : Mar 11, 2024
Report Number : 2921063-1

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

Technical Management
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445
Approved by
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442
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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2420981
Date Received : Mar 04, 2024
Date Reported : Mar 11, 2024
Report Number : 2919474-1

Sample Number	2420981-1
Sampled Date	Mar 04, 2024 1:50 PM
Sample Description	Wastewater
Contract ID	L_EIE_013_2550 **Plot** G-10 **Site** Siam Stabilizers & Chemicals Co.,Ltd.
Date Analysis Commenced	Mar 04, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	91.3	≤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	317	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	420	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	83	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-ล-9457

Remark :
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- 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-ล-9445

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2421037
Date Received : Mar 04, 2024
Date Reported : Mar 11, 2024
Report Number : 2919577-1

Sample Number	2421037-1
Sampled Date	Mar 04, 2024 2:55 PM
Sample Description	Wastewater
Contract ID	L_EIE_026_2550 **Plot** G-05 **Site** Thai Ethoxylate Co.,Ltd.
Date Analysis Commenced	Mar 04, 2024
Condition of Sample	Contained in two amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	63.8	≤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	248	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Formaldehyde	mg/L	0.03	0.1	Not Detected	≤1	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	396	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	47	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-ล-9457

Remark :
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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ล-9445

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company
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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2421037
Date Received : Mar 04, 2024
Date Reported : Mar 11, 2024
Report Number : 2919577-1

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

Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ล-9445

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2420996
Date Received : Mar 07, 2024
Date Reported : Mar 13, 2024
Report Number : 2919559-1

Sample Number	2420996-1
Sampled Date	Mar 07, 2024 3:00 PM
Sample Description	Wastewater
Contract ID	L_EIE_016_2550 **Plot** G-51 **Site** Thai Pet Resin Co.,Ltd.
Location	Station-1
Date Analysis Commenced	Mar 07, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	16.3	≤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	75	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	924	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	13	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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-ล-9445

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2421035
Date Received : Mar 04, 2024
Date Reported : Mar 11, 2024
Report Number : 2921055-1

Sample Number	2421035-1
Sampled Date	Mar 04, 2024 2:35 PM
Sample Description	Wastewater
Contract ID	L_EIE_021_2550 **Plot** G-04 **Site** Vanachai Chemical Industries Co.,Ltd.
Date Analysis Commenced	Mar 04, 2024
Condition of Sample	Contained in two amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Formaldehyde	mg/L	0.03	0.1	Not Detected	≤1	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	156	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-ล-9457

Remark :
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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report
TESTING
No.0042
Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE
Lot ID: 2421035
Date Received : Mar 04, 2024
Date Reported : Mar 11, 2024
Report Number : 2921055-1

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

Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445
Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442
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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2421001
Date Received : Mar 04, 2024
Date Reported : Mar 11, 2024
Report Number : 2919567-1

Sample Number	2421001-1
Sampled Date	Mar 04, 2024 10:25 AM
Sample Description	Wastewater
Contract ID	L_EIE_004_2558 **Plot** G.18 G.19 P.7 **Site** Vencorex (Thailand) Co.,Ltd.
Date Analysis Commenced	Mar 04, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	94	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-ล-9457

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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445
Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442
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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2421020
Date Received : Mar 07, 2024
Date Reported : Mar 13, 2024
Report Number : 2919582-1

Sample Number	2421020-1
Sampled Date	Mar 07, 2024 10:25 AM
Sample Description	Wastewater
Contract ID	L_WHA EIE_001_2563 **Plot** H-49 **Site** Zeon Chemicals Asia Co.,Ltd.
Date Analysis Commenced	Mar 07, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

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	≤200	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	82	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.3	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1344	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	16	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

Remark :
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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445
Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442
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Life Sciences www.alsglobal.com
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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434348
Date Received : Apr 01, 2024
Date Reported : Apr 08, 2024
Report Number : 2947192-1

Sample Number 2434348-1
Sampled Date Apr 01, 2024 9:55 AM
Sample Description Wastewater
Contract ID L_EIE_001_2556 **Plot** G-69,G-70 **Site** Aditya Birla Chemicals (Thailand) Ltd. (Advanced Materials)
Date Analysis Commenced Apr 01, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property Yellow, a lot of odour, some solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	21.3	≤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	120	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *	-	-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	284	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	16	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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-ส-9445

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434344
Date Received : Apr 05, 2024
Date Reported : Apr 12, 2024
Report Number : 2947176-1

Sample Number 2434344-1
Sampled Date Apr 05, 2024 2:15 PM
Sample Description Wastewater
Contract ID L_EIE_018_2550 **Plot** G-08 **Site** AGC Vinythai Public Company Limited
Date Analysis Commenced Apr 05, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	21.5	≤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	73	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *	-	-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	296	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	20	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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Technical Management Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ส-9446

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

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

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434376
Date Received : Apr 05, 2024
Date Reported : Apr 12, 2024
Report Number : 2947808-1

Sample Number 2434376-1
Sampled Date Apr 05, 2024 2:30 PM
Sample Description Wastewater
Contract ID L_EIE_002_2566 **Plot** G-15 to G-17 **Site** AGC Vinythai Public Company Limited
Date Analysis Commenced Apr 05, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	8.0	≤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	69	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *	-	-	-	7.3	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	488	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	8	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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Technical Management Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ส-9446

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434336
Date Received : Apr 04, 2024
Date Reported : Apr 10, 2024
Report Number : 2947156-1

Sample Number 2434336-1
Sampled Date Apr 04, 2024 10:10 AM
Sample Description Wastewater
Contract ID L_EIE_014_2550 **Plot** G-35 **Site** Alinex (Thailand) Ltd.
Date Analysis Commenced Apr 04, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property Yellow, a lot of odour, some solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	75.3	≤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
Oil & Grease	mg/L	-	3	5	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *	-	-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	444	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	32	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Pitthaya Thongtaeng ทะเบียนเลขที่ ว-323-ส-9448

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434337
Date Received : Apr 01, 2024
Date Reported : Apr 08, 2024
Report Number : 2947158-1

Sample Number	2434337-1
Sampled Date	Apr 01, 2024 10:20 AM
Sample Description	Wastewater
Contract ID	L_EIE_001_2550 **Plot** G-29 **Site** Arakawa Chemical (Thailand) Ltd.
Date Analysis Commenced	Apr 01, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and a lot of turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	21.4	≤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	114	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	364	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	20	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434338
Date Received : Apr 01, 2024
Date Reported : Apr 08, 2024
Report Number : 2947160-1

Sample Number	2434338-1
Sampled Date	Apr 01, 2024 2:00 PM
Sample Description	Wastewater
Contract ID	L_EIE_002_2550 **Plot** G-09 **Site** Asia Petroleum Thailand Co.,Ltd.
Date Analysis Commenced	Apr 01, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	276	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	10	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434354
Date Received : Apr 09, 2024
Date Reported : Apr 15, 2024
Report Number : 2947222-1

Sample Number	2434354-1
Sampled Date	Apr 09, 2024 10:35 AM
Sample Description	Wastewater
Contract ID	L_EIE_002_2556 **Plot** H-37 **Site** Bangkok Industrial Gas Company Limited.
Date Analysis Commenced	Apr 09, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	29	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	892	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434356
Date Received : Apr 05, 2024
Date Reported : Apr 12, 2024
Report Number : 2947258-1

Sample Number	2434356-1
Sampled Date	Apr 05, 2024 11:00 AM
Sample Description	Wastewater
Contract ID	L_EIE_004_2550 **Plot** G-37 **Site** Carbide Chemical (Thailand) Ltd.
Location	Inspection manhole
Date Analysis Commenced	Apr 05, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	161	≤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	584	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	6.9	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	2088	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	6	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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Technical Management Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ส-9446

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434375
Date Received : Apr 05, 2024
Date Reported : Apr 12, 2024
Report Number : 2947807-1

Sample Number	2434375-1
Sampled Date	Apr 05, 2024 1:55 PM
Sample Description	Wastewater
Contract ID	L_EIE_001_2566 **Plot** G-1/1 **Site** E-COATINGS ASIA COMPANY LIMITED
Date Analysis Commenced	Apr 05, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	17.7	≤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	98	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	296	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	25	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9446

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434360
Date Received : Apr 05, 2024
Date Reported : Apr 12, 2024
Report Number : 2947782-1

Sample Number	2434360-1
Sampled Date	Apr 05, 2024 9:35 AM
Sample Description	Wastewater
Contract ID	L_WHA EIE_006_2563 **Plot** G.77, G.77/1, H.42, H.44 **Site** GC Polyols Company Limited
Date Analysis Commenced	Apr 05, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.3	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	552	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9446

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company
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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434350
Date Received : Apr 01, 2024
Date Reported : Apr 08, 2024
Report Number : 2947215-1

Sample Number	2434350-1
Sampled Date	Apr 01, 2024 3:15 PM
Sample Description	Wastewater
Contract ID	L_EIE_001_2551 **Plot** G-06A **Site** Global Green Chemicals Co.,Ltd.
Date Analysis Commenced	Apr 01, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, a lot of solid and some turbid

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	139	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	624	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	28	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434346
Date Received : Apr 04, 2024
Date Reported : Apr 10, 2024
Report Number : 2947182-1

Sample Number	2434346-1
Sampled Date	Apr 04, 2024 10:50 AM
Sample Description	Wastewater
Contract ID	L_EIE_024_2550 **Plot** G-76 **Site** Global Power Synergy Co.,Ltd.
Location	CUP-1
Date Analysis Commenced	Apr 04, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, a lot of solid and some turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	8.5	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	236	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	31	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Pitthaya Thongtaeng ทะเบียนเลขที่ ว-323-ล-9448

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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434345
Date Received : Apr 02, 2024
Date Reported : Apr 08, 2024
Report Number : 2947179-1

Sample Number	2434345-1
Sampled Date	Apr 02, 2024 3:45 PM
Sample Description	Wastewater
Contract ID	L_EIE_002_2553 **Plot** H-17 **Site** Global Power Synergy Co.,Ltd.
Location	CUP-3
Date Analysis Commenced	Apr 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	34	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1190	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	14	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ส-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434349
Date Received : Apr 04, 2024
Date Reported : Apr 10, 2024
Report Number : 2947213-1

Sample Number	2434349-1
Sampled Date	Apr 04, 2024 2:50 PM
Sample Description	Wastewater
Contract ID	L_EIE_003_2553 **Plot** G-06 **Site** HMC Polymers Co.,Ltd.
Date Analysis Commenced	Apr 04, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	8.6	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	724	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Pitthaya Thongtaeng ทะเบียนเลขที่ ว-323-ส-9448

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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ส-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434365
Date Received : Apr 02, 2024
Date Reported : Apr 08, 2024
Report Number : 2947265-1

Sample Number	2434365-1
Sampled Date	Apr 02, 2024 10:25 AM
Sample Description	Wastewater
Contract ID	L_EIE_002_2561 **Plot** H.52A **Site** Iharanikkei Chemical (Thailand) Co.,Ltd.
Date Analysis Commenced	Apr 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	12.6	≤200	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	48	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	276	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	11	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
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Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434333
Date Received : Apr 01, 2024
Date Reported : Apr 08, 2024
Report Number : 2947143-1

Sample Number	2434333-1
Sampled Date	Apr 01, 2024 10:10 AM
Sample Description	Wastewater
Contract ID	L_EIE_005_2552 **Plot** G-30 **Site** KLJ Organic (Thailand) Ltd.
Date Analysis Commenced	Apr 01, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, a lot of solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	15.0	≤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	34	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	164	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	7	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ส-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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TESTING
No.0042

Analysis / Test Report

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434370
Date Received : Apr 05, 2024
Date Reported : Apr 12, 2024
Report Number : 2947806-1

Sample Number 2434370-1
Sampled Date Apr 05, 2024 10:25 AM
Sample Description Wastewater
Contract ID L_EIE_002_2565 **Plot** H.13a, H.13e, PW.27-1, H.47b **Site** Kuraray Advanced chemicals(Thailand) Co.,Ltd.
Date Analysis Commenced Apr 05, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property Yellow, some odour, solid and no turbid

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	≤200	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	39	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *	-	-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	57	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9446

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

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Analysis / Test Report

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434369
Date Received : Apr 05, 2024
Date Reported : Apr 12, 2024
Report Number : 2947805-1

Sample Number 2434369-1
Sampled Date Apr 05, 2024 10:10 AM
Sample Description Wastewater
Contract ID L_EIE_001_2565 **Plot** PW.28, PW.31, H.47a, H.47c, H.51 **Site** Kuraray GC Advanced Materials Co.,Ltd. (North)
Date Analysis Commenced Apr 05, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property Yellow, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	16.1	≤200	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	48	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *	-	-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1750	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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

Technical Management Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9446

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

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TESTING
No.0042

Analysis / Test Report

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434343
Date Received : Apr 01, 2024
Date Reported : Apr 08, 2024
Report Number : 2947173-1

Sample Number 2434343-1
Sampled Date Apr 01, 2024 2:30 PM
Sample Description Wastewater
Contract ID L_EIE_015_2550 **Plot** G-14 **Site** Linde (Thailand) PLC.
Date Analysis Commenced Apr 01, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	35.5	≤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	164	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	4	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *	-	-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	384	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	41	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

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

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TESTING
No.0042

Analysis / Test Report

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434355
Date Received : Apr 02, 2024
Date Reported : Apr 08, 2024
Report Number : 2947224-1

Sample Number 2434355-1
Sampled Date Apr 02, 2024 3:05 PM
Sample Description Wastewater
Contract ID L_EIE_004_2556 **Plot** H-10,H-11 **Site** Linde (Thailand) Public Company Limited.
Date Analysis Commenced Apr 02, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property Yellow, some odour, solid and turbid

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	≤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	38	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *	-	-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	936	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	21	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434334
Date Received : Apr 01, 2024
Date Reported : Apr 08, 2024
Report Number : 2947146-1

Sample Number	2434334-1
Sampled Date	Apr 01, 2024 10:40 AM
Sample Description	Wastewater
Contract ID	L_EIE_002_2551 **Plot** G-23 **Site** MARC (Thailand) Co.,Ltd.
Date Analysis Commenced	Apr 01, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and a lot of turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	62.5	≤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	234	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	7	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	496	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	43	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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

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

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No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434351
Date Received : Apr 02, 2024
Date Reported : Apr 08, 2024
Report Number : 2947217-1

Sample Number	2434351-1
Sampled Date	Apr 02, 2024 2:45 PM
Sample Description	Wastewater
Contract ID	L_EIE_010_2550 **Plot** G-03 **Site** MCLS Asia Co.,Ltd.
Date Analysis Commenced	Apr 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	59.1	≤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	269	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1556	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	29	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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

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

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Client : WHA Utilities and Power Public Company Limited
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P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434340
Date Received : Apr 02, 2024
Date Reported : Apr 08, 2024
Report Number : 2947164-1

Sample Number	2434340-1
Sampled Date	Apr 01, 2024 3:30 PM
Sample Description	Wastewater
Contract ID	L_EIE_011_2550 **Plot** G-12 **Site** Mechema Chemical Co.,Ltd.
Date Analysis Commenced	Apr 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	192	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434332
Date Received : Apr 01, 2024
Date Reported : Apr 08, 2024
Report Number : 2947135-1

Sample Number	2434332-1
Sampled Date	Apr 01, 2024 11:20 AM
Sample Description	Wastewater
Contract ID	L_EIE_025_2550 **Plot** G-43 **Site** MIG Production Co.,Ltd.
Date Analysis Commenced	Apr 01, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, a lot of solid and some turbid

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	≤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	71	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1356	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	36	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434385
Date Received : Apr 01, 2024
Date Reported : Apr 08, 2024
Report Number : 2947798-1

Sample Number	2434385-1
Sampled Date	Apr 01, 2024 9:30 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2550 **Plot** G-72 **Site** NS BlueScope (Thailand) Limited.
Date Analysis Commenced	Apr 01, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	8.8	≤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	51	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	5	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	6.2	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	964	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	12	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005 , Thanasoun Namakunna ทะเบียนเลขที่ ว-204-ล-0101

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Technical Management
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Supervisor
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Approved by
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0009

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434385
Date Received : Apr 01, 2024
Date Reported : Apr 08, 2024
Report Number : 2947798-2

Sample Number	2434385-1
Sampled Date	Apr 01, 2024 9:30 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2550 **Plot** G-72 **Site** NS BlueScope (Thailand) Limited.
Date Analysis Commenced	Apr 02, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Zinc	mg/L	0.003	0.005	0.02	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005 , Thanasoun Namakunna ทะเบียนเลขที่ ว-204-ล-0101

Remark :
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- "<" : Lower then LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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Technical Management
Sawitree Noisangjam
Manager
ทะเบียนเลขที่ ว-204-ล-0007

Approved by
Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ล-0004

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Analysis / Test Report

TESTING
No.0009

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434385
Date Received : Apr 01, 2024
Date Reported : Apr 08, 2024
Report Number : 2947798-3

Sample Number	2434385-1
Sampled Date	Apr 01, 2024 9:30 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2550 **Plot** G-72 **Site** NS BlueScope (Thailand) Limited.
Date Analysis Commenced	Apr 02, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Iron	mg/L	0.003	0.005	1.73	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui , Thanasoun Namakunna

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Approved by
Sawitree Noisangjam
Manager

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434383
Date Received : Apr 04, 2024
Date Reported : Apr 10, 2024
Report Number : 2947795-1

Sample Number	2434383-1
Sampled Date	Apr 04, 2024 11:05 AM
Sample Description	Wastewater
Contract ID	L_EIE_020_2550 **Plot** G-56 - G-66,68 **Site** NS-Siam United Steel Co.,Ltd.
Location	Factory 1
Date Analysis Commenced	Apr 04, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, a lot of olid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	9.2	≤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	45	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	6.6	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	37.0	≤45	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	604	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	9	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Pitthaya Thongtaeng ทะเบียนเลขที่ ว-323-ล-9448 , Pattarapol Sawangjaitam ทะเบียนเลขที่ ว-204-ล-0002

Remark :
- LOD : Limit of Detection

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434383
Date Received : Apr 04, 2024
Date Reported : Apr 10, 2024
Report Number : 2947795-1

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

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

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

Analysis / Test Report

TESTING
No.0009

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434383
Date Received : Apr 04, 2024
Date Reported : Apr 11, 2024
Report Number : 2947795-2

Sample Number	2434383-1
Sampled Date	Apr 04, 2024 11:05 AM
Sample Description	Wastewater
Contract ID	L_EIE_020_2550 **Plot** G-56 - G-66,68 **Site** NS-Siam United Steel Co.,Ltd.
Location	Factory 1
Date Analysis Commenced	Apr 05, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, a lot of oild and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Iron	mg/L	0.003	0.005	1.31	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Pitthaya Thongtaeng , Pattarapol Sawangjaitam

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Approved by
Sawitree Noisangiam
Manager

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

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434384
Date Received : Apr 04, 2024
Date Reported : Apr 10, 2024
Report Number : 2947797-1

Sample Number	2434384-1
Sampled Date	Apr 04, 2024 11:15 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2556 **Plot** G-67 **Site** Ns-Siam United Steel Co.,Ltd.
Location	Factory 2
Date Analysis Commenced	Apr 04, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.0	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	368	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Pitthaya Thongtaeng ทะเบียนเลขที่ ว-323-ล-9448 , Pattarapol Sawangjaitam ทะเบียนเลขที่ ว-204-ล-0002

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

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

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Analysis / Test Report

TESTING
No.0009

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434384
Date Received : Apr 04, 2024
Date Reported : Apr 11, 2024
Report Number : 2947797-2

Sample Number	2434384-1
Sampled Date	Apr 04, 2024 11:15 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2556 **Plot** G-67 **Site** Ns-Siam United Steel Co.,Ltd.
Location	Factory 2
Date Analysis Commenced	Apr 05, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Zinc	mg/L	0.003	0.005	0.44	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Pitthaya Thongtaeng ทะเบียนเลขที่ ว-323-ล-9448 , Pattarapol Sawangjaitam ทะเบียนเลขที่ ว-204-ล-0002

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Technical Management
Sawitree Noisangiam
Manager
ทะเบียนเลขที่ ว-204-ล-0007

Approved by
Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ล-0004

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

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434353
Date Received : Apr 02, 2024
Date Reported : Apr 08, 2024
Report Number : 2947220-1

Sample Number	2434353-1
Sampled Date	Apr 02, 2024 2:15 PM
Sample Description	Wastewater
Contract ID	L_EIE_002_2554 **Plot** H-12 **Site** PTT Asahi Chemical Co.,Ltd.
Date Analysis Commenced	Apr 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	5.6	≤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	28	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.0	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	2140	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	12	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

Remark :
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Technical Management
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

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

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

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434342
Date Received : Apr 09, 2024
Date Reported : Apr 15, 2024
Report Number : 2947168-1

Sample Number	2434342-1
Sampled Date	Apr 09, 2024 2:00 PM
Sample Description	Wastewater
Contract ID	L_EIE_003_2554 **Plot** G-02,03 **Site** PTT Global Chemical Public Company Limited. (EA Plant)
Date Analysis Commenced	Apr 09, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	36.4	≤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	76	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.3	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	216	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	19	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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

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

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

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434378
Date Received : Apr 09, 2024
Date Reported : Apr 15, 2024
Report Number : 2947783-1

Sample Number	2434378-1
Sampled Date	Apr 09, 2024 2:15 PM
Sample Description	Wastewater
Contract ID	L_EIE_023_2550 **Plot** G-02-02A-03 **Site** PTT Global Chemical Public Company Limited. (EG Plant)
Date Analysis Commenced	Apr 09, 2024
Condition of Sample	Contained in two amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
BOD (5 days at 20 Degree C)	mg/L	-	2.0	11.7	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	39	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Formaldehyde	mg/L	0.03	0.1	Not Detected	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed ,2004	Rayong
Oil & Grease	mg/L	-	3	<3	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	214	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

Remark :
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Technical Management
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

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

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

Analysis / Test Report

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434378
Date Received : Apr 09, 2024
Date Reported : Apr 15, 2024
Report Number : 2947783-2

Sample Number	2434378-1
Sampled Date	Apr 09, 2024 2:15 PM
Sample Description	Wastewater
Contract ID	L_EIE_023_2550 **Plot** G-02-02A-03 **Site** PTT Global Chemical Public Company Limited. (EG Plant)
Date Analysis Commenced	Apr 10, 2024
Condition of Sample	Contained in two amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
Chloride as Cl2	mg/L	0.5	1	52	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (B)	Rayong

Sampling By : Sansoen Khuiyoksui

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

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Approved by
Narumon Banchongkit
Supervisor

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

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434364
Date Received : Apr 04, 2024
Date Reported : Apr 10, 2024
Report Number : 2947211-1

Sample Number	2434364-1
Sampled Date	Apr 04, 2024 9:50 AM
Sample Description	Wastewater
Contract ID	L_EIE_001_2552 **Plot** H-20-22 **Site** PTT Global Chemical Public Company Limited
Location	Station-1 (Admin)
Date Analysis Commenced	Apr 04, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	76.8	≤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	346	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	7	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.3	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	570	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	52	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Pitthaya Thongtaeng ทะเบียนเลขที่ ว-323-ล-9448

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-ล-9445

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

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

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434382
Date Received : Apr 04, 2024
Date Reported : Apr 10, 2024
Report Number : 2947794-1

Sample Number	2434382-1
Sampled Date	Apr 04, 2024 9:40 AM
Sample Description	Wastewater
Contract ID	L_EIE_002_2552 **Plot** H-20-22 **Site** PTT Global Chemical Public Company Limited
Location	Station-2 (Factory)
Date Analysis Commenced	Apr 04, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	16.8	≤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	76	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	6200	(1)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	43	≤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).
(1) Total Dissolved Solids when discharged to receiving water having TDS > 3,000 mg/L, TDS in the to-be-discharged wastewater can exceed the TDS already found in the receiving water by not higher than 5,000 mg/L.
Sampling By : Pitthaya Thongtaeng ทะเบียนเลขที่ ว-323-ล-9448

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434382
Date Received : Apr 04, 2024
Date Reported : Apr 10, 2024
Report Number : 2947794-1

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-ล-9445

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434363
Date Received : Apr 04, 2024
Date Reported : Apr 10, 2024
Report Number : 2947209-1

Sample Number	2434363-1
Sampled Date	Apr 04, 2024 9:30 AM
Sample Description	Wastewater
Contract ID	L_EIE_004_2553 **Plot** H-23A,H-31 **Site** PTT Global Chemical Public Company Limited
Location	Bis-Phenol A
Date Analysis Commenced	Apr 04, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	632	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Pitthaya Thongtaeng ทะเบียนเลขที่ ว-323-ล-9448

Remark :
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Technical Management
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

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

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2434368

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Apr 02, 2024
Date Reported : Apr 08, 2024
Report Number : 2947780-1

Sample Number	2434368-1
Sampled Date	Apr 02, 2024 10:55 AM
Sample Description	Wastewater
Contract ID	L_WHA EIE_004_2563 **Plot** H.13/1 **Site** Quechen Silica (Thailand) Co.,Ltd.
Location	Domestic wastewater
Date Analysis Commenced	Apr 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

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	≤200	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	27	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	230	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	8	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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-ส-9445

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

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2434347

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Apr 01, 2024
Date Reported : Apr 08, 2024
Report Number : 2947188-1

Sample Number	2434347-1
Sampled Date	Apr 01, 2024 9:45 AM
Sample Description	Wastewater
Contract ID	L_EIE_005_2550 **Plot** G-71 **Site** Rockwool (Thailand) Limited.
Date Analysis Commenced	Apr 01, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	199	≤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	485	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	8	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	424	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	72	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

Remark :
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Technical Management
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ส-9445

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

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2434386

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Apr 02, 2024
Date Reported : Apr 08, 2024
Report Number : 2947801-1

Sample Number	2434386-1
Sampled Date	Apr 02, 2024 11:05 AM
Sample Description	Wastewater
Contract ID	L_EIE_001_2558 **Plot** H-15 **Site** S and L Specialty Polymers Co.,Ltd.
Location	Station 1
Date Analysis Commenced	Apr 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	43	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Temperature *	Degree C	-	-	32.2	≤45	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	808	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

Remark :
- LOD : Limit of Detection

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

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

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2434386

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Apr 02, 2024
Date Reported : Apr 08, 2024
Report Number : 2947801-1

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434389
Date Received : Apr 02, 2024
Date Reported : Apr 08, 2024
Report Number : 2947803-1

Sample Number	2434389-1
Sampled Date	Apr 02, 2024 11:15 AM
Sample Description	Wastewater
Contract ID	L_EIE_002_2558 **Plot** H-15 **Site** S and L Specialty Polymers Co.,Ltd.
Location	Station 2
Date Analysis Commenced	Apr 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

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	48	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	5	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Temperature *	Degree C	-	-	35.8	≤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	22600	(1)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	7	≤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).
(1) Total Dissolved Solids when discharged to receiving water having TDS > 3,000 mg/L, TDS in the to-be-discharged wastewater can exceed the TDS already found in the receiving water by not higher than 5,000 mg/L.
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-จ-0005

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

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

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434389
Date Received : Apr 02, 2024
Date Reported : Apr 08, 2024
Report Number : 2947803-1

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 N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

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

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434387
Date Received : Apr 02, 2024
Date Reported : Apr 08, 2024
Report Number : 2947804-1

Sample Number	2434387-1
Sampled Date	Apr 02, 2024 9:45 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2558 **Plot** H-45 **Site** SEKISUI SPECIALTY CHEMICALS (THAILAND) Co.,Ltd.
Date Analysis Commenced	Apr 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	10.9	≤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	31	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	4	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.1	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	33.6	≤45	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	216	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	8	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-จ-0005

Remark :
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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
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Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434387
Date Received : Apr 02, 2024
Date Reported : Apr 08, 2024
Report Number : 2947804-1

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

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

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

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434339
Date Received : Apr 01, 2024
Date Reported : Apr 08, 2024
Report Number : 2947163-1

Sample Number	2434339-1
Sampled Date	Apr 01, 2024 2:10 PM
Sample Description	Wastewater
Contract ID	L_EIE_013_2550 **Plot** G-10 **Site** Siam Stabilizers & Chemicals Co.,Ltd.
Date Analysis Commenced	Apr 01, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	122	≤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	317	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	4	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	468	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	76	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-จ-0005

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Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434358
Date Received : Apr 04, 2024
Date Reported : Apr 10, 2024
Report Number : 2947262-1

Sample Number	2434358-1
Sampled Date	Apr 04, 2024 10:20 AM
Sample Description	Wastewater
Contract ID	L_EIE_001_2561 **Plot** G.34/1 **Site** Solvay (Thailand) Limited.
Date Analysis Commenced	Apr 04, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Green, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	6.2	≤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	53	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	420	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	26	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Pitthaya Thongtaeng ทะเบียนเลขที่ ว-323-จ-9448

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434381
Date Received : Apr 01, 2024
Date Reported : Apr 08, 2024
Report Number : 2947268-1

Sample Number	2434381-1
Sampled Date	Apr 01, 2024 3:45 PM
Sample Description	Wastewater
Contract ID	L_EIE_026_2550 **Plot** G-05 **Site** Thai Ethoxylate Co.,Ltd.
Date Analysis Commenced	Apr 01, 2024
Condition of Sample	Contained in two amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	53.6	≤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	188	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Formaldehyde	mg/L	0.03	0.1	Not Detected	≤1	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Oil & Grease	mg/L	-	3	4	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	296	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	35	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-จ-0005

Remark :
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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434381
Date Received : Apr 01, 2024
Date Reported : Apr 08, 2024
Report Number : 2947268-1

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

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434352
Date Received : Apr 04, 2024
Date Reported : Apr 10, 2024
Report Number : 2947219-1

Sample Number	2434352-1
Sampled Date	Apr 04, 2024 1:50 PM
Sample Description	Wastewater
Contract ID	L_EIE_016_2550 **Plot** G-51 **Site** Thai Pet Resin Co.,Ltd.
Location	Station-1
Date Analysis Commenced	Apr 04, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	20.4	≤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	140	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	950	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	47	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Pitthaya Thongtaeng ทะเบียนเลขที่ ว-323-ล-9448

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434379
Date Received : Apr 01, 2024
Date Reported : Apr 08, 2024
Report Number : 2947792-1

Sample Number	2434379-1
Sampled Date	Apr 01, 2024 3:10 PM
Sample Description	Wastewater
Contract ID	L_EIE_021_2550 **Plot** G-04 **Site** Vanachai Chemical Industries Co.,Ltd.
Date Analysis Commenced	Apr 01, 2024
Condition of Sample	Contained in two amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Formaldehyde	mg/L	0.03	0.1	Not Detected	≤1	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed ,2004	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.3	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	192	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434379
Date Received : Apr 01, 2024
Date Reported : Apr 08, 2024
Report Number : 2947792-1

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

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

Approved by
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Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2434357
Date Received : Apr 01, 2024
Date Reported : Apr 08, 2024
Report Number : 2947261-1

Sample Number	2434357-1
Sampled Date	Apr 01, 2024 10:30 AM
Sample Description	Wastewater
Contract ID	L_EIE_004_2558 **Plot** G.18 G.19 P.7 **Site** Vencorex (Thailand) Co.,Ltd.
Date Analysis Commenced	Apr 01, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, a lot of solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	9.8	≤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	31	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	384	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	27	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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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-ล-9445

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

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2434367

Date Received : Apr 02, 2024
Date Reported : Apr 08, 2024
Report Number : 2947272-1

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Sample Number 2434367-1
Sampled Date Apr 02, 2024 10:10 AM
Sample Description Wastewater
Contract ID L_WHA EIE_001_2563 **Plot** H-49 **Site** Zeon Chemicals Asia Co.,Ltd.
Date Analysis Commenced Apr 02, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property Yellow, some odour, solid and no turbid

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	≤200	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	50	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1804	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	13	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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-ล-9445

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

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2445773

Date Received : May 02, 2024
Date Reported : May 08, 2024
Report Number : 2973671-1

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Sample Number 2445773-1
Sampled Date May 02, 2024 10:15 AM
Sample Description Wastewater
Contract ID L_EIE_001_2556 **Plot** G-69,G-70 **Site** Aditya Birla Chemicals (Thailand) Ltd. (Advanced Materials)
Date Analysis Commenced May 02, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	30.0	≤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	114	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	6	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	376	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	12	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

Remark :
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Technical Management
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9446

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

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2445769

Date Received : May 10, 2024
Date Reported : May 16, 2024
Report Number : 2973657-1

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Sample Number 2445769-1
Sampled Date May 10, 2024 10:25 AM
Sample Description Wastewater
Contract ID L_EIE_018_2550 **Plot** G-08 **Site** AGC Vinythai Public Company Limited
Date Analysis Commenced May 10, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property Yellow, a lot of odour, some solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	41.7	≤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	142	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	596	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	20	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

Remark :
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Technical Management
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

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

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2445808

Date Received : May 10, 2024
Date Reported : May 16, 2024
Report Number : 2973718-1

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Sample Number 2445808-1
Sampled Date May 10, 2024 10:40 AM
Sample Description Wastewater
Contract ID L_EIE_002_2566 **Plot** G-15 to G-17 **Site** AGC Vinythai Public Company Limited
Date Analysis Commenced May 10, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	6.2	≤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	47	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	5	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.1	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	448	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	9	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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

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

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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company
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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445761
Date Received : May 09, 2024
Date Reported : May 16, 2024
Report Number : 2973643-1

Sample Number	2445761-1
Sampled Date	May 09, 2024 10:50 AM
Sample Description	Wastewater
Contract ID	L_EIE_014_2550 **Plot** G-35 **Site** Allnex (Thailand) Ltd.
Date Analysis Commenced	May 09, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	16.8	≤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	58	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	396	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	11	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445762
Date Received : May 09, 2024
Date Reported : May 16, 2024
Report Number : 2973646-1

Sample Number	2445762-1
Sampled Date	May 09, 2024 9:55 AM
Sample Description	Wastewater
Contract ID	L_EIE_001_2550 **Plot** G-29 **Site** Arakawa Chemical (Thailand) Ltd.
Date Analysis Commenced	May 09, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and a lot of turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	34.8	≤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	129	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	432	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	28	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445763
Date Received : May 02, 2024
Date Reported : May 08, 2024
Report Number : 2973647-1

Sample Number	2445763-1
Sampled Date	May 02, 2024 1:55 PM
Sample Description	Wastewater
Contract ID	L_EIE_002_2550 **Plot** G-09 **Site** Asia Petroleum Thailand Co.,Ltd.
Date Analysis Commenced	May 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	228	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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Technical Management Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ส-9446

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445779
Date Received : May 07, 2024
Date Reported : May 14, 2024
Report Number : 2973688-1

Sample Number	2445779-1
Sampled Date	May 07, 2024 10:08 AM
Sample Description	Wastewater
Contract ID	L_EIE_002_2556 **Plot** H-37 **Site** Bangkok Industrial Gas Company Limited.
Date Analysis Commenced	May 07, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

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	≤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	48	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1092	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	9	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Chainusorn Lertnanthakunchai ทะเบียนเลขที่ ว-323-ส-9461

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

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

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2445781

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : May 10, 2024
Date Reported : May 16, 2024
Report Number : 2973691-1

Sample Number 2445781-1
Sampled Date May 10, 2024 10:45 AM
Sample Description Wastewater
Contract ID L_EIE_004_2550 **Plot** G-37 **Site** Carbide Chemical (Thailand) Ltd.
Location Inspection manhole
Date Analysis Commenced May 10, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property Colorless, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	8.5	≤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	55	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	276	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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Technical Management Thanita Kulsuriwong, Scientist (4), ทะเบียนเลขที่ ว-323-ส-9447

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2445807

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : May 02, 2024
Date Reported : May 08, 2024
Report Number : 2973717-1

Sample Number 2445807-1
Sampled Date May 02, 2024 1:45 PM
Sample Description Wastewater
Contract ID L_EIE_001_2566 **Plot** G-1/1 **Site** E-COATINGS ASIA COMPANY LIMITED
Date Analysis Commenced May 02, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property Yellow, a lot of odour, some solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	44.4	≤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	124	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	4	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	408	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	11	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ส-9445

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2445785

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : May 09, 2024
Date Reported : May 16, 2024
Report Number : 2973698-1

Sample Number 2445785-1
Sampled Date May 09, 2024 10:05 AM
Sample Description Wastewater
Contract ID L_WHA EIE_006_2563 **Plot** G.77, G.77/1, H.42, H.44 **Site** GC Polyols Company Limited
Date Analysis Commenced May 09, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property Yellow, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	11.9	≤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	47	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	5	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	6.9	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	576	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ส-9445

Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ส-9442

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TESTING
No.0042

Lot ID: 2445775

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : May 10, 2024
Date Reported : May 16, 2024
Report Number : 2973675-1

Sample Number 2445775-1
Sampled Date May 10, 2024 2:40 PM
Sample Description Wastewater
Contract ID L_EIE_001_2551 **Plot** G-06A **Site** Global Green Chemicals Co.,Ltd.
Date Analysis Commenced May 10, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property Yellow, some odour, a lot of solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	13.2	≤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	126	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	632	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	35	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

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Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ส-9442

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No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445771
Date Received : May 10, 2024
Date Reported : May 16, 2024
Report Number : 2973668-1

Sample Number	2445771-1
Sampled Date	May 10, 2024 4:15 PM
Sample Description	Wastewater
Contract ID	L_EIE_024_2550 **Plot** G-76 **Site** Global Power Synergy Co.,Ltd.
Location	CUP - 1
Date Analysis Commenced	May 10, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	436	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	16	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

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Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ส-9442

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TESTING
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Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445770
Date Received : May 10, 2024
Date Reported : May 16, 2024
Report Number : 2973667-1

Sample Number	2445770-1
Sampled Date	May 10, 2024 3:05 PM
Sample Description	Wastewater
Contract ID	L_EIE_002_2553 **Plot** H-17 **Site** Global Power Synergy Co.,Ltd.
Location	CUP - 3
Date Analysis Commenced	May 10, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	27	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	800	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	12	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445774
Date Received : May 10, 2024
Date Reported : May 16, 2024
Report Number : 2973673-1

Sample Number	2445774-1
Sampled Date	May 10, 2024 2:10 PM
Sample Description	Wastewater
Contract ID	L_EIE_003_2553 **Plot** G-06 **Site** HMC Polymers Co.,Ltd.
Date Analysis Commenced	May 10, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	456	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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Technical Management Narumon Banchongkit, Supervisor, ทะเบียนเลขที่ ว-323-ส-9445
Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445798
Date Received : May 03, 2024
Date Reported : May 09, 2024
Report Number : 2973703-1

Sample Number	2445798-1
Sampled Date	May 03, 2024 2:56 PM
Sample Description	Wastewater
Contract ID	L_EIE_002_2561 **Plot** H.52A **Site** Iharanikkei Chemical (Thailand) Co.,Ltd.
Date Analysis Commenced	May 03, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	7.8	≤200	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	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	246	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	12	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-ส-9460

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-ส-9445
Approved by Dej Changchon, Senior Manager, ทะเบียนเลขที่ ว-323-ส-9442

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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company
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Analysis / Test Report

TESTING No.0042

Lot ID: 2445758

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : May 02, 2024
Date Reported : May 08, 2024
Report Number : 2973637-1

Sample Number	2445758-1
Sampled Date	May 02, 2024 10:35 AM
Sample Description	Wastewater
Contract ID	L_EIE_005_2552 **Plot** G-30 **Site** KLJ Organic (Thailand) Ltd.
Date Analysis Commenced	May 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, a lot of solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	192	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	6	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

Remark :
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Technical Management Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ส-9446

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

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Analysis / Test Report

TESTING No.0042

Lot ID: 2445802

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : May 09, 2024
Date Reported : May 16, 2024
Report Number : 2973710-1

Sample Number	2445802-1
Sampled Date	May 09, 2024 11:40 AM
Sample Description	Wastewater
Contract ID	L_EIE_002_2565 **Plot** H.13a, H.13e, PW.27-1, H.47b **Site** Kuraray Advanced chemicals(Thailand) Co.,Ltd.
Date Analysis Commenced	May 09, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

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	≤200	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	<25	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	56	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	15	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

Remark :
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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ส-9445

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

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Analysis / Test Report

TESTING No.0042

Lot ID: 2445801

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : May 09, 2024
Date Reported : May 16, 2024
Report Number : 2973708-1

Sample Number	2445801-1
Sampled Date	May 09, 2024 11:25 AM
Sample Description	Wastewater
Contract ID	L_EIE_001_2565 **Plot** PW.28, PW.31, H.47a, H.47c, H.51 **Site** Kuraray GC Advanced Materials Co.,Ltd. (North)
Date Analysis Commenced	May 09, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤200	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	<25	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	484	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	8	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

Remark :
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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ส-9445

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

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Analysis / Test Report

TESTING No.0042

Lot ID: 2445768

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : May 02, 2024
Date Reported : May 08, 2024
Report Number : 2973656-1

Sample Number	2445768-1
Sampled Date	May 02, 2024 2:40 PM
Sample Description	Wastewater
Contract ID	L_EIE_015_2550 **Plot** G-14 **Site** Linde (Thailand) PLC.
Date Analysis Commenced	May 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	62.1	≤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	196	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	476	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	35	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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Technical Management Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ส-9446

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445780
Date Received : May 10, 2024
Date Reported : May 16, 2024
Report Number : 2973689-1

Sample Number 2445780-1
Sampled Date May 10, 2024 3:35 PM
Sample Description Wastewater
Contract ID L_EIE_004_2556 **Plot** H-10,H-11 **Site** Linde (Thailand) Public Company Limited
Date Analysis Commenced May 10, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property Yellow, some odour, solid and no turbid

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	≤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	34	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1028	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	8	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทรเบียนเลขที่ ว-323-ล-0005

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Technical Management Thanita K.
Thanita Kulsuriwong
Scientist (4)
ทรเบียนเลขที่ ว-323-ล-9447

Approved by D. Changchon
Dej Changchon
Senior Manager
ทรเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445759
Date Received : May 02, 2024
Date Reported : May 08, 2024
Report Number : 2973639-1

Sample Number 2445759-1
Sampled Date May 02, 2024 10:55 AM
Sample Description Wastewater
Contract ID L_EIE_002_2551 **Plot** G-23 **Site** MARC (Thailand) Co.,Ltd.
Date Analysis Commenced May 02, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	139	≤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	335	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	484	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	57	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทรเบียนเลขที่ ว-323-ล-0005

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Technical Management Photchana S.
Photchana Seeda
Scientist (4)
ทรเบียนเลขที่ ว-323-ล-9446

Approved by D. Changchon
Dej Changchon
Senior Manager
ทรเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445776
Date Received : May 09, 2024
Date Reported : May 16, 2024
Report Number : 2973679-1

Sample Number 2445776-1
Sampled Date May 09, 2024 2:25 PM
Sample Description Wastewater
Contract ID L_EIE_010_2550 **Plot** G-03 **Site** MCLS Asia Co.,Ltd.
Date Analysis Commenced May 09, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	102	≤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	269	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1624	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	70	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทรเบียนเลขที่ ว-323-ล-0005

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Technical Management N. Banchongkit
Narumon Banchongkit
Supervisor
ทรเบียนเลขที่ ว-323-ล-9445

Approved by D. Changchon
Dej Changchon
Senior Manager
ทรเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445765
Date Received : May 02, 2024
Date Reported : May 08, 2024
Report Number : 2973651-1

Sample Number 2445765-1
Sampled Date May 02, 2024 2:30 PM
Sample Description Wastewater
Contract ID L_EIE_011_2550 **Plot** G-12 **Site** Mechema Chemical Co.,Ltd.
Date Analysis Commenced May 02, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property Colorless, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	3.4	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	224	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทรเบียนเลขที่ ว-323-ล-0005

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 Photchana S.
Photchana Seeda
Scientist (4)
ทรเบียนเลขที่ ว-323-ล-9446

Approved by D. Changchon
Dej Changchon
Senior Manager
ทรเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445757
Date Received : May 02, 2024
Date Reported : May 08, 2024
Report Number : 2973636-1

Sample Number 2445757-1
Sampled Date May 02, 2024 11:40 AM
Sample Description Wastewater
Contract ID L_EIE_025_2550 **Plot** G-43 **Site** MIG Production Co.,Ltd.
Date Analysis Commenced May 02, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property Yellow, some odour, a lot of solid and some turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	64	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	14	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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Technical Management Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ส-9446

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445826
Date Received : May 02, 2024
Date Reported : May 08, 2024
Report Number : 2973733-1

Sample Number 2445826-1
Sampled Date May 02, 2024 9:50 AM
Sample Description Wastewater
Contract ID L_EIE_003_2550 **Plot** G-72 **Site** NS BlueScope (Thailand) Limited.
Date Analysis Commenced May 02, 2024
Condition of Sample Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property Yellow, some odour, a lot of solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	19.4	≤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	62	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	5	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	6.3	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1656	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	20	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005 , Thanasoun Namakunna ทะเบียนเลขที่ ว-204-ส-0101

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

Technical Management Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ส-9446

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

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Analysis / Test Report

TESTING
No.0009

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445826
Date Received : May 02, 2024
Date Reported : May 09, 2024
Report Number : 2973733-2

Sample Number 2445826-1
Sampled Date May 02, 2024 9:50 AM
Sample Description Wastewater
Contract ID L_EIE_003_2550 **Plot** G-72 **Site** NS BlueScope (Thailand) Limited.
Date Analysis Commenced May 03, 2024
Condition of Sample Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property Yellow, some odour, a lot of solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
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

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005 , Thanasoun Namakunna ทะเบียนเลขที่ ว-204-ส-0101

Remark :
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Technical Management Sawitree N.
Sawitree Noisangiam
Manager
ทะเบียนเลขที่ ว-204-ส-0007

Approved by
Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ส-0004

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Analysis / Test Report

TESTING
No.0009

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445826
Date Received : May 02, 2024
Date Reported : May 09, 2024
Report Number : 2973733-3

Sample Number 2445826-1
Sampled Date May 02, 2024 9:50 AM
Sample Description Wastewater
Contract ID L_EIE_003_2550 **Plot** G-72 **Site** NS BlueScope (Thailand) Limited.
Date Analysis Commenced May 03, 2024
Condition of Sample Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property Yellow, some odour, a lot of solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Iron	mg/L	0.003	0.005	2.41	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui , Thanasoun Namakunna

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Approved by Sawitree N.
Sawitree Noisangiam
Manager

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Analysis / Test Report

TESTING No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445823
Date Received : May 03, 2024
Date Reported : May 09, 2024
Report Number : 2973731-1

Sample Number	2445823-1
Sampled Date	May 03, 2024 11:35 AM
Sample Description	Wastewater
Contract ID	L_EIE_020_2550 **Plot** G-56 - G-66,68 **Site** NS-Siam United Steel Co.,Ltd.
Location	Factory 1
Date Analysis Commenced	May 03, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	24.3	≤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	70	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	6	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	6.9	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	38.4	≤45	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	696	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	13	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-ล-9460 , Samart Khumphlee ทะเบียนเลขที่ ว-204-ล-0084

Remark :
- LOD : Limit of Detection

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

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

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Analysis / Test Report

TESTING No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445823
Date Received : May 03, 2024
Date Reported : May 09, 2024
Report Number : 2973731-1

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

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

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Analysis / Test Report

TESTING No.0009

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445823
Date Received : May 03, 2024
Date Reported : May 10, 2024
Report Number : 2973731-2

Sample Number	2445823-1
Sampled Date	May 03, 2024 11:35 AM
Sample Description	Wastewater
Contract ID	L_EIE_020_2550 **Plot** G-56 - G-66,68 **Site** NS-Siam United Steel Co.,Ltd.
Location	Factory 1
Date Analysis Commenced	May 06, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Iron	mg/L	0.003	0.005	2.83	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Tanasit Wongsachai , Samart Khumphlee

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Approved by
Sawitree Noisangiam
Manager

Analysis / Test Report

TESTING No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445824
Date Received : May 03, 2024
Date Reported : May 09, 2024
Report Number : 2973732-1

Sample Number	2445824-1
Sampled Date	May 03, 2024 11:29 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2556 **Plot** G-67 **Site** Ns-Siam United Steel Co.,Ltd.
Location	Factory 2
Date Analysis Commenced	May 03, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	4.1	≤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	43	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	400	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	6	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-ล-9460 , Samart Khumphlee ทะเบียนเลขที่ ว-204-ล-0084

Remark :
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Technical Management
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

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

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Analysis / Test Report

TESTING
No.0009

Lot ID: 2445824

Date Received : May 03, 2024
Date Reported : May 10, 2024
Report Number : 2973732-2

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Sample Number	2445824-1
Sampled Date	May 03, 2024 11:29 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2556 **Plot** G-67 **Site** Ns-Siam United Steel Co.,Ltd.
Location	Factory 2
Date Analysis Commenced	May 06, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Zinc	mg/L	0.003	0.005	0.85	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-ล-9460 , Samart Khumphlee ทะเบียนเลขที่ ว-204-ล-0084

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

Technical Management Sawitree N.
Sawitree Noisangiam
Manager
ทะเบียนเลขที่ ว-204-ล-0007

Approved by Kanokkorn Anek
Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ล-0004

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2445778

Date Received : May 09, 2024
Date Reported : May 16, 2024
Report Number : 2973687-1

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Sample Number	2445778-1
Sampled Date	May 09, 2024 2:00 PM
Sample Description	Wastewater
Contract ID	L_EIE_002_2554 **Plot** H-12 **Site** PTT Asahi Chemical Co.,Ltd.
Date Analysis Commenced	May 09, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	21.9	≤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	349	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	6.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1340	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	12	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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 N.Banngkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Chancon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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

Analysis / Test Report

TESTING
No.0042

Lot ID: 2445767

Date Received : May 10, 2024
Date Reported : May 16, 2024
Report Number : 2973655-1

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Sample Number	2445767-1
Sampled Date	May 10, 2024 9:50 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2554 **Plot** G-02,03 **Site** PTT Global Chemical Public Company Limited. (EA Plant)
Date Analysis Commenced	May 10, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and a lot of turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	94.0	≤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	259	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	10	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.3	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	756	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	43	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management N.Banngkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Chancon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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

Analysis / Test Report

TESTING
No.0042

Lot ID: 2445815

Date Received :May 10, 2024
Date Reported :May 16, 2024
Report Number :2973722-1

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Sample Number	2445815-1
Sampled Date	May 10, 2024 10:55 AM
Sample Description	Wastewater
Contract ID	L_EIE_023_2550 **Plot** G-02-02A-03 **Site** PTT Global Chemical Public Company Limited. (EG Plant)
Date Analysis Commenced	May 10, 2024
Condition of Sample	Contained in two amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	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	52	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Formaldehyde	mg/L	0.03	0.1	Not Detected	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Oil & Grease	mg/L	-	3	<3	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.3	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	684	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	19	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management N.Banngkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Chancon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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

Analysis / Test Report

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445815
Date Received :May 10, 2024
Date Reported :May 16, 2024
Report Number :2973722-2

Sample Number	2445815-1
Sampled Date	May 10, 2024 10:55 AM
Sample Description	Wastewater
Contract ID	L_EIE_023_2550 **Plot** G-02-02A-03 **Site** PTT Global Chemical Public Company Limited. (EG Plant)
Date Analysis Commenced	May 15, 2024
Condition of Sample	Contained in two amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
Chloride as Cl	mg/L	0.5	1	116	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (B)	Rayong

Sampling By : Sansoen Khuiyoksui

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Approved by
Narumon Banchongkit
Supervisor

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445821
Date Received : May 02, 2024
Date Reported : May 08, 2024
Report Number : 2973727-1

Sample Number	2445821-1
Sampled Date	May 02, 2024 11:15 AM
Sample Description	Wastewater
Contract ID	L_EIE_001_2553 **Plot** H-29 **Site** PTT Global Chemical Public Company Limited.
Date Analysis Commenced	May 02, 2024
Condition of Sample	Contained in two amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, a lot of solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	189	≤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	361	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Formaldehyde	mg/L	0.03	0.1	<0.1	≤1	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.3	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	268	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	18	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445821
Date Received : May 02, 2024
Date Reported : May 08, 2024
Report Number : 2973727-1

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

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445804
Date Received : May 10, 2024
Date Reported : May 16, 2024
Report Number : 2973711-1

Sample Number	2445804-1
Sampled Date	May 10, 2024 9:25 AM
Sample Description	Wastewater
Contract ID	L_WHA EIE_003_2563 **Plot** G.18/2, G.20/1, H.28/1, H.34/1, PW18/1, PW.19, PW.20 **Site** PTT Global Chemical Public Company Limited
Location	จุดที่ 2
Date Analysis Commenced	May 10, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

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	≤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	<25	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.2	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	2300	(1)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤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).
(1) Total Dissolved Solids when discharged to receiving water having TDS > 3,000 mg/L, TDS in the to-be-discharged wastewater can exceed the TDS already found in the receiving water by not higher than 5,000 mg/L.
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

Remark :
- LOD : Limit of Detection

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445804
Date Received : May 10, 2024
Date Reported : May 16, 2024
Report Number : 2973711-1

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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445791
Date Received : May 03, 2024
Date Reported : May 09, 2024
Report Number : 2973702-1

Sample Number	2445791-1
Sampled Date	May 03, 2024 10:15 AM
Sample Description	Wastewater
Contract ID	L_EIE_001_2552 **Plot** H-20-22 **Site** PTT Global Chemical Public Company Limited
Location	Station - 1 (Admin)
Date Analysis Commenced	May 03, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	39.8	≤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	158	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	5	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	396	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	27	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-ล-9460

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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445790
Date Received : May 09, 2024
Date Reported : May 16, 2024
Report Number : 2973701-1

Sample Number	2445790-1
Sampled Date	May 09, 2024 1:35 PM
Sample Description	Wastewater
Contract ID	L_EIE_004_2553 **Plot** H-23A,H-31 **Site** PTT Global Chemical Public Company Limited
Location	Bis - Phenol A
Date Analysis Commenced	May 09, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	37	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	712	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	6	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445800
Date Received : May 03, 2024
Date Reported : May 09, 2024
Report Number : 2973706-1

Sample Number	2445800-1
Sampled Date	May 03, 2024 11:08 AM
Sample Description	Wastewater
Contract ID	L_WHA EIE_004_2563 **Plot** H.13/1 **Site** Quechen Silica (Thailand) Co.,Ltd.
Location	Domestic wastewater
Date Analysis Commenced	May 03, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	6.9	≤200	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	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	328	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	15	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-ล-9460

Remark :
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- 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 N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-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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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445827
Date Received : May 03, 2024
Date Reported : May 09, 2024
Report Number : 2973737-1

Sample Number	2445827-1
Sampled Date	May 03, 2024 3:15 PM
Sample Description	Wastewater
Contract ID	L_EIE_001_2558 **Plot** H-15 **Site** S and L Specialty Polymers Co.,Ltd.
Location	Station 1
Date Analysis Commenced	May 03, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	19.8	≤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	66	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Temperature *	Degree C	-	-	36.2	≤45	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	648	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	15	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-ส-9460

Remark :
- LOD : Limit of Detection

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445827
Date Received : May 03, 2024
Date Reported : May 09, 2024
Report Number : 2973737-1

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445830
Date Received : May 03, 2024
Date Reported : May 09, 2024
Report Number : 2973742-1

Sample Number	2445830-1
Sampled Date	May 03, 2024 3:20 PM
Sample Description	Wastewater
Contract ID	L_EIE_002_2558 **Plot** H-15 **Site** S and L Specialty Polymers Co.,Ltd.
Location	Station 2
Date Analysis Commenced	May 03, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	3.6	≤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	-	40	58	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 C	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Temperature *	Degree C	-	-	38.6	≤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	25400	(1)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	10	≤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).
(1) Total Dissolved Solids when discharged to receiving water having TDS > 3,000 mg/L, TDS in the to-be-discharged wastewater can exceed the TDS already found in the receiving water by not higher than 5,000 mg/L.
Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-ส-9460

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

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445830
Date Received : May 03, 2024
Date Reported : May 09, 2024
Report Number : 2973742-1

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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-ส-9445

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445828
Date Received : May 03, 2024
Date Reported : May 09, 2024
Report Number : 2973740-1

Sample Number	2445828-1
Sampled Date	May 03, 2024 10:30 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2558 **Plot** H-45 **Site** SEKISUI SPECIALTY CHEMICALS (THAILAND) CO.,LTD.
Date Analysis Commenced	May 03, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, a lot of solid and some turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Temperature *	Degree C	-	-	36.0	≤45	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	200	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	8	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-จ-9460

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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.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445828
Date Received : May 03, 2024
Date Reported : May 09, 2024
Report Number : 2973740-1

- 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.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445764
Date Received : May 02, 2024
Date Reported : May 08, 2024
Report Number : 2973650-1

Sample Number	2445764-1
Sampled Date	May 02, 2024 2:10 PM
Sample Description	Wastewater
Contract ID	L_EIE_013_2550 **Plot** G-10 **Site** Siam Stabilizers & Chemicals Co.,Ltd.
Date Analysis Commenced	May 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	138	≤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	340	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	590	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	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 : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-จ-0005

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Technical Management
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-จ-9446

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445819
Date Received : May 02, 2024
Date Reported : May 08, 2024
Report Number : 2973723-1

Sample Number	2445819-1
Sampled Date	May 02, 2024 3:25 PM
Sample Description	Wastewater
Contract ID	L_EIE_026_2550 **Plot** G-05 **Site** Thai Ethoxylate Co.,Ltd.
Date Analysis Commenced	May 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	63.0	≤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	162	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Formaldehyde	mg/L	0.03	0.1	Not Detected	≤1	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Oil & Grease	mg/L	-	3	4	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	280	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	20	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-จ-0005

Remark :
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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.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445819
Date Received : May 02, 2024
Date Reported : May 08, 2024
Report Number : 2973723-1

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

Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445777
Date Received : May 03, 2024
Date Reported : May 09, 2024
Report Number : 2973685-1

Sample Number	2445777-1
Sampled Date	May 03, 2024 3:45 PM
Sample Description	Wastewater
Contract ID	L_EIE_016_2550 **Plot** G-51 **Site** Thai Pet Resin Co.,Ltd.
Location	Station - 1
Date Analysis Commenced	May 03, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	13.3	≤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	76	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1030	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	50	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-ล-9460

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 N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-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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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company
www.alsglobal.com

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445820
Date Received : May 02, 2024
Date Reported : May 08, 2024
Report Number : 2973725-1

Sample Number	2445820-1
Sampled Date	May 02, 2024 3:00 PM
Sample Description	Wastewater
Contract ID	L_EIE_021_2550 **Plot** G-04 **Site** Vanachai Chemical Industries Co.,Ltd.
Date Analysis Commenced	May 02, 2024
Condition of Sample	Contained in two amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Formaldehyde	mg/L	0.03	0.1	Not Detected	≤1	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	152	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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.

Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-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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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company
www.alsglobal.com

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2445820
Date Received : May 02, 2024
Date Reported : May 08, 2024
Report Number : 2973725-1

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

Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ล-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2445782

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : May 02, 2024
Date Reported : May 08, 2024
Report Number : 2973693-1

Sample Number	2445782-1
Sampled Date	May 02, 2024 10:45 AM
Sample Description	Wastewater
Contract ID	L_EIE_004_2558 **Plot** G.18 G.19 P.7 **Site** Vencorex (Thailand) Co.,Ltd.
Date Analysis Commenced	May 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	300	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

Remark :
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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ส-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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Life Sciences www.alsglobal.com
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Analysis / Test Report

TESTING
No.0042

Lot ID: 2445789

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : May 02, 2024
Date Reported : May 08, 2024
Report Number : 2973700-1

Sample Number	2445789-1
Sampled Date	May 02, 2024 1:35 PM
Sample Description	Wastewater
Contract ID	L_EIE_022_2550 **Plot** G-01 **Site** Zeon Chemical (Thailand) Co.,Ltd.
Date Analysis Commenced	May 02, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
BOD (5 days at 20 Degree C)	mg/L	-	2.0	12.2	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	1.5	25	30	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	8.1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	2820	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	12	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

Remark :
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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ส-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2445799

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : May 03, 2024
Date Reported : May 09, 2024
Report Number : 2973705-1

Sample Number	2445799-1
Sampled Date	May 03, 2024 2:28 PM
Sample Description	Wastewater
Contract ID	L_WHA EIE_001_2563 **Plot** H-49 **Site** Zeon Chemicals Asia Co.,Ltd.
Date Analysis Commenced	May 03, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

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	≤200	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	47	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1980	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-ส-9460

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Technical Management N.Banchongkit
Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-ส-9445

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2459130

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Jun 06, 2024
Date Reported : Jun 13, 2024
Report Number : 3002617-1

Sample Number	2459130-1
Sampled Date	Jun 06, 2024 1:38 PM
Sample Description	Wastewater
Contract ID	L_EIE_001_2556 **Plot** G-69,G-70 **Site** Aditya Birla Chemicals (Thailand) Ltd. (Advanced Materials)
Date Analysis Commenced	Jun 06, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	13.1	≤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	99	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	564	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	11	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

Remark :
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Technical Management Thanitak.
Thanita Kulsuriwong
Scientist (4)
ทะเบียนเลขที่ ว-323-ส-9447

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459126
Date Received : Jun 10, 2024
Date Reported : Jun 17, 2024
Report Number : 3002609-1

Sample Number	2459126-1
Sampled Date	Jun 10, 2024 2:05 PM
Sample Description	Wastewater
Contract ID	L_EIE_018_2550 **Plot** G-08 **Site** AGC Vinythai Public Company Limited
Date Analysis Commenced	Jun 10, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and a lot of turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	94.4	≤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	157	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	564	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	37	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui หมายเลขที่ ว-323-ล-0005

Remark :
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Technical Management Photchana S.
Photchana Seeda
Scientist (4)
หมายเลขที่ ว-323-ล-9446

Approved by
Dej Changchon
Senior Manager
หมายเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459155
Date Received : Jun 10, 2024
Date Reported : Jun 17, 2024
Report Number : 3002715-1

Sample Number	2459155-1
Sampled Date	Jun 10, 2024 2:15 PM
Sample Description	Wastewater
Contract ID	L_EIE_002_2566 **Plot** G-15 to G-17 **Site** AGC Vinythai Public Company Limited
Date Analysis Commenced	Jun 10, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and a lot of turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	21.9	≤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	139	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	624	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	31	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui หมายเลขที่ ว-323-ล-0005

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

Technical Management Photchana S.
Photchana Seeda
Scientist (4)
หมายเลขที่ ว-323-ล-9446

Approved by
Dej Changchon
Senior Manager
หมายเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459118
Date Received : Jun 10, 2024
Date Reported : Jun 17, 2024
Report Number : 3002594-1

Sample Number	2459118-1
Sampled Date	Jun 10, 2024 9:55 AM
Sample Description	Wastewater
Contract ID	L_EIE_014_2550 **Plot** G-35 **Site** Allnex (Thailand) Ltd.
Date Analysis Commenced	Jun 10, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	87.2	≤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	222	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	424	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	30	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui หมายเลขที่ ว-323-ล-0005

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Technical Management Photchana S.
Photchana Seeda
Scientist (4)
หมายเลขที่ ว-323-ล-9446

Approved by
Dej Changchon
Senior Manager
หมายเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459119
Date Received : Jun 06, 2024
Date Reported : Jun 13, 2024
Report Number : 3002595-1

Sample Number	2459119-1
Sampled Date	Jun 06, 2024 10:34 AM
Sample Description	Wastewater
Contract ID	L_EIE_001_2550 **Plot** G-29 **Site** Arakawa Chemical (Thailand) Ltd.
Date Analysis Commenced	Jun 06, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	29.9	≤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	154	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	5	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	436	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	39	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui หมายเลขที่ ว-323-ล-0005

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Technical Management Thanita K.
Thanita Kulsuriwong
Scientist (4)
หมายเลขที่ ว-323-ล-9447

Approved by
Dej Changchon
Senior Manager
หมายเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459120
Date Received : Jun 06, 2024
Date Reported : Jun 13, 2024
Report Number : 3002597-1

Sample Number	2459120-1
Sampled Date	Jun 06, 2024 2:07 PM
Sample Description	Wastewater
Contract ID	L_EIE_002_2550 **Plot** G-09 **Site** Asia Petroleum Thailand Co.,Ltd.
Date Analysis Commenced	Jun 06, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, a lot of solid and some turbid

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	≤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	27	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	5	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	348	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	10	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management Thanita Kulsuriwong
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9447

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459136
Date Received : Jun 04, 2024
Date Reported : Jun 11, 2024
Report Number : 3002651-1

Sample Number	2459136-1
Sampled Date	Jun 04, 2024 11:05 AM
Sample Description	Wastewater
Contract ID	L_EIE_002_2556 **Plot** H-37 **Site** Bangkok Industrial Gas Company Limited.
Date Analysis Commenced	Jun 04, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	3.7	≤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	29	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.2	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	964	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	7	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Chainusorn Lertnanthakunchai ทะเบียนเลขที่ ว-323-ล-9461

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Technical Management Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9446

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459138
Date Received : Jun 11, 2024
Date Reported : Jun 17, 2024
Report Number : 3002657-1

Sample Number	2459138-1
Sampled Date	Jun 11, 2024 10:50 AM
Sample Description	Wastewater
Contract ID	L_EIE_004_2550 **Plot** G-37 **Site** Carbide Chemical (Thailand) Ltd.
Location	Inspection manhole
Date Analysis Commenced	Jun 11, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, a lot of solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	9.3	≤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	33	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.1	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	338	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	7	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

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Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management Chontichak Subongkoch
Scientist (3)
ทะเบียนเลขที่ ว-323-ล-9449

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459154
Date Received : Jun 06, 2024
Date Reported : Jun 13, 2024
Report Number : 3002712-1

Sample Number	2459154-1
Sampled Date	Jun 06, 2024 1:58 PM
Sample Description	Wastewater
Contract ID	L_EIE_001_2566 **Plot** G-1/1 **Site** E-COATINGS ASIA COMPANY LIMITED
Date Analysis Commenced	Jun 06, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and a lot of turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	17.7	≤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	70	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	460	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	28	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management Thanita Kulsuriwong
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9447

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459142
Date Received : Jun 11, 2024
Date Reported : Jun 17, 2024
Report Number : 3002686-1

Sample Number	2459142-1
Sampled Date	Jun 11, 2024 10:10 AM
Sample Description	Wastewater
Contract ID	L_WHA EIE_006_2563 **Plot** G.77, G.77/1, H.42, H.44 **Site** GC Polyols Company Limited
Date Analysis Commenced	Jun 11, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	3.8	≤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	29	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.1	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	316	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management Chontichak
Chonticha Subongkoch
Scientist (3)
ทะเบียนเลขที่ ว-323-ล-9449

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459132
Date Received : Jun 10, 2024
Date Reported : Jun 17, 2024
Report Number : 3002640-1

Sample Number	2459132-1
Sampled Date	Jun 10, 2024 2:40 PM
Sample Description	Wastewater
Contract ID	L_EIE_001_2551 **Plot** G-06A **Site** Global Green Chemicals Co.,Ltd.
Date Analysis Commenced	Jun 10, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	74.9	≤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	156	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.2	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	432	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	21	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9446

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459128
Date Received : Jun 10, 2024
Date Reported : Jun 17, 2024
Report Number : 3002612-1

Sample Number	2459128-1
Sampled Date	Jun 10, 2024 3:40 PM
Sample Description	Wastewater
Contract ID	L_EIE_024_2550 **Plot** G-76 **Site** Global Power Synergy Co.,Ltd.
Location	CUP - 1
Date Analysis Commenced	Jun 10, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	464	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	20	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9446

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459127
Date Received : Jun 10, 2024
Date Reported : Jun 17, 2024
Report Number : 3002611-1

Sample Number	2459127-1
Sampled Date	Jun 10, 2024 10:45 AM
Sample Description	Wastewater
Contract ID	L_EIE_002_2553 **Plot** H-17 **Site** Global Power Synergy Co.,Ltd.
Location	CUP - 3
Date Analysis Commenced	Jun 10, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

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	≤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	47	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1036	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	12	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9446

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

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TESTING
No.0042

Analysis / Test Report

Lot ID: 2459131

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Jun 11, 2024
Date Reported : Jun 17, 2024
Report Number : 3002633-1

Sample Number	2459131-1
Sampled Date	Jun 11, 2024 2:25 PM
Sample Description	Wastewater
Contract ID	L_EIE_003_2553 **Plot** G-06 **Site** HMC Polymers Co.,Ltd.
Date Analysis Commenced	Jun 11, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	36	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	2412	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	8	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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Technical Management Chontichak
Chonticha Subongkoch
Scientist (3)
ทะเบียนเลขที่ ว-323-ส-9449

Approved by D.Chunson
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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No.0042

Analysis / Test Report

Lot ID: 2459146

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Jun 07, 2024
Date Reported : Jun 13, 2024
Report Number : 3002668-1

Sample Number	2459146-1
Sampled Date	Jun 07, 2024 10:40 AM
Sample Description	Wastewater
Contract ID	L_EIE_002_2561 **Plot** H.52A **Site** Iharanikkei Chemical (Thailand) Co.,Ltd.
Date Analysis Commenced	Jun 07, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤200	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	<25	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	356	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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Technical Management Chontichak
Chonticha Subongkoch
Scientist (3)
ทะเบียนเลขที่ ว-323-ส-9449

Approved by D.Chunson
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

Lot ID: 2459156

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Jun 11, 2024
Date Reported : Jun 17, 2024
Report Number : 3002717-1

Sample Number	2459156-1
Sampled Date	Jun 11, 2024 2:55 PM
Sample Description	Wastewater
Contract ID	L_EIE_001_2567 **Plot** G.25,G.26 **Site** Interpretive Co.,Ltd.
Date Analysis Commenced	Jun 11, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	4.0	≤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	30	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	8.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	192	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	6	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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Technical Management Chontichak
Chonticha Subongkoch
Scientist (3)
ทะเบียนเลขที่ ว-323-ส-9449

Approved by D.Chunson
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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TESTING
No.0042

Analysis / Test Report

Lot ID: 2459115

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Jun 06, 2024
Date Reported : Jun 13, 2024
Report Number : 3002587-1

Sample Number	2459115-1
Sampled Date	Jun 06, 2024 10:22 AM
Sample Description	Wastewater
Contract ID	L_EIE_005_2552 **Plot** G-30 **Site** KLJ Organic (Thailand) Ltd.
Date Analysis Commenced	Jun 06, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	4	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	264	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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Technical Management Thanitak.
Thanita Kulsunwong
Scientist (4)
ทะเบียนเลขที่ ว-323-ส-9447

Approved by D.Chunson
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location: WHA EIE

Lot ID: 2459149
Date Received : Jun 07, 2024
Date Reported : Jun 13, 2024
Report Number : 3002708-1

Sample Number	2459149-1
Sampled Date	Jun 07, 2024 11:35 AM
Sample Description	Wastewater
Contract ID	L_EIE_001_2565 **Plot** PW.28, PW.31, H.47a, H.4c, H.51 **Site** Kuraray GC Advanced Materials Co.,Ltd. (North)
Date Analysis Commenced	Jun 07, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤200	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	<25	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1080	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-จ-0005

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Technical Management
Chonticha Subongkoch
Scientist (3)
ทะเบียนเลขที่ ว-323-จ-9449

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location: WHA EIE

Lot ID: 2459125
Date Received : Jun 06, 2024
Date Reported : Jun 13, 2024
Report Number : 3002607-1

Sample Number	2459125-1
Sampled Date	Jun 06, 2024 2:37 PM
Sample Description	Wastewater
Contract ID	L_EIE_015_2550 **Plot** G-14 **Site** Linde (Thailand) PLC.
Date Analysis Commenced	Jun 06, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	45.1	≤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	225	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	8	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.3	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	504	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	28	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-จ-0005

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Technical Management
Thanita Kulsunwong
Scientist (4)
ทะเบียนเลขที่ ว-323-จ-9447

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location: WHA EIE

Lot ID: 2459137
Date Received : Jun 07, 2024
Date Reported : Jun 13, 2024
Report Number : 3002654-1

Sample Number	2459137-1
Sampled Date	Jun 07, 2024 3:40 PM
Sample Description	Wastewater
Contract ID	L_EIE_004_2556 **Plot** H-10 , H-11 **Site** Linde (Thailand) Public Company Limited.
Date Analysis Commenced	Jun 07, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	34	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	6.9	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1012	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-จ-0005

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Technical Management
Chonticha Subongkoch
Scientist (3)
ทะเบียนเลขที่ ว-323-จ-9449

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location: WHA EIE

Lot ID: 2459116
Date Received : Jun 06, 2024
Date Reported : Jun 13, 2024
Report Number : 3002590-1

Sample Number	2459116-1
Sampled Date	Jun 06, 2024 10:56 AM
Sample Description	Wastewater
Contract ID	L_EIE_002_2551 **Plot** G-23 **Site** MARC (Thailand) Co.,Ltd.
Date Analysis Commenced	Jun 06, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	26.8	≤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	101	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	4	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	260	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	20	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-จ-0005

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Technical Management
Thanita Kulsunwong
Scientist (4)
ทะเบียนเลขที่ ว-323-จ-9447

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459133
Date Received : Jun 07, 2024
Date Reported : Jun 13, 2024
Report Number : 3002642-1

Sample Number	2459133-1
Sampled Date	Jun 07, 2024 11:10 AM
Sample Description	Wastewater
Contract ID	L_EIE_010_2550 **Plot** G-03 **Site** MCLS Asia Co.,Ltd.
Date Analysis Commenced	Jun 07, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	174	≤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	476	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	3000	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	92	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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Technical Management Chontichak
Chonticha Subongkoch
Scientist (3)
ทะเบียนเลขที่ ว-323-ส-9449

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459122
Date Received : Jun 06, 2024
Date Reported : Jun 13, 2024
Report Number : 3002600-1

Sample Number	2459122-1
Sampled Date	Jun 06, 2024 2:29 PM
Sample Description	Wastewater
Contract ID	L_EIE_011_2550 **Plot** G-12 **Site** Mechema Chemical Co.,Ltd.
Date Analysis Commenced	Jun 06, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	4	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	220	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

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Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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Technical Management Thanitak.
Thanita Kulsuriwong
Scientist (4)
ทะเบียนเลขที่ ว-323-ส-9447

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459114
Date Received : Jun 06, 2024
Date Reported : Jun 13, 2024
Report Number : 3002585-1

Sample Number	2459114-1
Sampled Date	Jun 06, 2024 11:21 AM
Sample Description	Wastewater
Contract ID	L_EIE_025_2550 **Plot** G-43 **Site** MIG Production Co.,Ltd.
Date Analysis Commenced	Jun 06, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	4	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	212	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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Technical Management Thanitak.
Thanita Kulsuriwong
Scientist (4)
ทะเบียนเลขที่ ว-323-ส-9447

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459165
Date Received : Jun 06, 2024
Date Reported : Jun 13, 2024
Report Number : 3002702-1

Sample Number	2459165-1
Sampled Date	Jun 06, 2024 9:42 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2550 **Plot** G-72 **Site** NS BlueScope (Thailand) Limited.
Date Analysis Commenced	Jun 06, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	6.0	≤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	60	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	6	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	6.8	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1164	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	12	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005 , Samart Khumphlee ทะเบียนเลขที่ ว-204-ส-0084

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Technical Management Thanitak.
Thanita Kulsuriwong
Scientist (4)
ทะเบียนเลขที่ ว-323-ส-9447

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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Analysis / Test Report

TESTING
No.0009

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459165
Date Received : Jun 06, 2024
Date Reported : Jun 13, 2024
Report Number : 3002702-2

Sample Number	2459165-1
Sampled Date	Jun 06, 2024 9:42 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2550 **Plot** G-72 **Site** NS BlueScope (Thailand) Limited.
Date Analysis Commenced	Jun 07, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Zinc	mg/L	0.003	0.005	0.03	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005 , Samart Khumphlee ทะเบียนเลขที่ ว-204-ส-0084

Remark :
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Technical Management Sawitree N.
Sawitree Noisangiam
Manager
ทะเบียนเลขที่ ว-204-ส-0007

Approved by Kanokkorn Anek
Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ส-0004

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Analysis / Test Report

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459165
Date Received : Jun 06, 2024
Date Reported : Jun 13, 2024
Report Number : 3002702-3

Sample Number	2459165-1
Sampled Date	Jun 06, 2024 9:42 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2550 **Plot** G-72 **Site** NS BlueScope (Thailand) Limited.
Date Analysis Commenced	Jun 07, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Iron	mg/L	0.003	0.005	2.50	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui , Samart Khumphlee

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Approved by Sawitree N.
Sawitree Noisangiam
Manager

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459163
Date Received : Jun 10, 2024
Date Reported : Jun 17, 2024
Report Number : 3002699-1

Sample Number	2459163-1
Sampled Date	Jun 10, 2024 11:00 AM
Sample Description	Wastewater
Contract ID	L_EIE_020_2550 **Plot** G-56 - G-66,68 **Site** NS-Siam United Steel Co.,Ltd.
Location	Factory 1
Date Analysis Commenced	Jun 10, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	12.7	≤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	44	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	6.8	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	37.2	≤45	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	640	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	14	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005 , Thanasoun Namakunna ทะเบียนเลขที่ ว-204-ส-0101

Remark :
- LOD : Limit of Detection

Technical Management Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ส-9446

Approved by Dej Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-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.

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459163
Date Received : Jun 10, 2024
Date Reported : Jun 17, 2024
Report Number : 3002699-1

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

Technical Management Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ส-9446

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

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Analysis / Test Report

TESTING
No.0009

Lot ID: 2459163

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Jun 10, 2024
Date Reported : Jun 17, 2024
Report Number : 3002699-2

Sample Number	2459163-1
Sampled Date	Jun 10, 2024 11:00 AM
Sample Description	Wastewater
Contract ID	L_EIE_020_2550 **Plot** G-56 - G-66,68 **Site** NS-Siam United Steel Co.,Ltd.
Location	Factory 1
Date Analysis Commenced	Jun 11, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Iron	mg/L	0.003	0.005	2.15	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui , Thanasoun Namakunna

Remark :
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Approved by Sawitree N.
Sawitree Noisangiam
Manager

Analysis / Test Report

TESTING
No.0042

Lot ID: 2459164

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Jun 10, 2024
Date Reported : Jun 17, 2024
Report Number : 3002701-1

Sample Number	2459164-1
Sampled Date	Jun 10, 2024 11:25 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2556 **Plot** G-67 **Site** Ns-Siam United Steel Co.,Ltd.
Location	Factory 2
Date Analysis Commenced	Jun 10, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	5.2	≤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	32	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.2	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	532	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	7	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005 , Thanasoun Namakunna ทะเบียนเลขที่ ว-204-ล-0101

Remark :
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Technical Management Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9446

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

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Analysis / Test Report

TESTING
No.0009

Lot ID: 2459164

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Jun 10, 2024
Date Reported : Jun 17, 2024
Report Number : 3002701-2

Sample Number	2459164-1
Sampled Date	Jun 10, 2024 11:25 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2556 **Plot** G-67 **Site** Ns-Siam United Steel Co.,Ltd.
Location	Factory 2
Date Analysis Commenced	Jun 11, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Zinc	mg/L	0.003	0.005	0.50	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005 , Thanasoun Namakunna ทะเบียนเลขที่ ว-204-ล-0101

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Technical Management Sawitree N.
Sawitree Noisangiam
Manager
ทะเบียนเลขที่ ว-204-ล-0007

Approved by Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ล-0004

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2459135

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Date Received : Jun 07, 2024
Date Reported : Jun 13, 2024
Report Number : 3002648-1

Sample Number	2459135-1
Sampled Date	Jun 07, 2024 2:10 PM
Sample Description	Wastewater
Contract ID	L_EIE_002_2554 **Plot** H-12 **Site** PTT Asahi Chemical Co.,Ltd.
Date Analysis Commenced	Jun 07, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	6.9	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1244	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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Technical Management Chontichak
Chonticha Subongkoch
Scientist (3)
ทะเบียนเลขที่ ว-323-ล-9449

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459124
Date Received : Jun 10, 2024
Date Reported : Jun 17, 2024
Report Number : 3002605-1

Sample Number	2459124-1
Sampled Date	Jun 10, 2024 10:15 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2554 **Plot** G-02,03 **Site** PTT Global Chemical Public Company Limited. (EA Plant)
Date Analysis Commenced	Jun 10, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	252	≤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	518	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	468	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	31	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

Remark :
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Technical Management Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9446

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company
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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459158
Date Received : Jun 10, 2024
Date Reported : Jun 17, 2024
Report Number : 3002688-1

Sample Number	2459158-1
Sampled Date	Jun 10, 2024 3:05 PM
Sample Description	Wastewater
Contract ID	L_EIE_023_2550 **Plot** G-02-02A-03 **Site** PTT Global Chemical Public Company Limited. (EG Plant)
Date Analysis Commenced	Jun 10, 2024
Condition of Sample	Contained in two amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
BOD (5 days at 20 Degree C)	mg/L	-	2.0	3.6	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	43	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Formaldehyde	mg/L	0.03	0.1	Not Detected	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Oil & Grease	mg/L	-	3	<3	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.3	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	716	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	11	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

Remark :
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Technical Management Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9446

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459158
Date Received : Jun 10, 2024
Date Reported : Jun 17, 2024
Report Number : 3002688-2

Sample Number	2459158-1
Sampled Date	Jun 10, 2024 3:05 PM
Sample Description	Wastewater
Contract ID	L_EIE_023_2550 **Plot** G-02-02A-03 **Site** PTT Global Chemical Public Company Limited. (EG Plant)
Date Analysis Commenced	Jun 13, 2024
Condition of Sample	Contained in two amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
Chloride as Cl	mg/L	0.5	1	125	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (B)	Rayong

Sampling By : Sansoen Khuiyoksui

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

Approved by Photchana S.
Photchana Seeda
Scientist (4)

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459161
Date Received : Jun 06, 2024
Date Reported : Jun 13, 2024
Report Number : 3002693-1

Sample Number	2459161-1
Sampled Date	Jun 06, 2024 11:11 AM
Sample Description	Wastewater
Contract ID	L_EIE_001_2553 **Plot** H-29 **Site** PTT Global Chemical Public Company Limited.
Date Analysis Commenced	Jun 06, 2024
Condition of Sample	Contained in one amber glass bottle and four plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	107	≤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	265	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Formaldehyde	mg/L	0.03	0.1	<0.1	≤1	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Oil & Grease	mg/L	-	3	6	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	268	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	22	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

Remark :
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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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Technical Management Thanita
Thanita Kulsuriwong
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9447

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459161
Date Received : Jun 06, 2024
Date Reported : Jun 13, 2024
Report Number : 3002693-1

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

Technical Management — Thanita Kulsuriwong, Scientist (4), ทะเบียนเลขที่ ว-323-จ-9447

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459141
Date Received : Jun 06, 2024
Date Reported : Jun 13, 2024
Report Number : 3002678-1

Sample Number	2459141-1
Sampled Date	Jun 06, 2024 10:04 AM
Sample Description	Wastewater
Contract ID	L_WHA EIE_002_2563 **Plot** G.18/2, G.20/1, H.28/1, H.34/1, PW18/1, PW.19, PW.20 **Site** PTT Global Chemical Public Company Limited
Location	จุดที่ 1
Date Analysis Commenced	Jun 06, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

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	≤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	46	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	816	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-จ-0005

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.

Technical Management — Thanita Kulsuriwong, Scientist (4), ทะเบียนเลขที่ ว-323-จ-9447

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.

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459141
Date Received : Jun 06, 2024
Date Reported : Jun 13, 2024
Report Number : 3002678-1

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

Technical Management — Thanita Kulsuriwong, Scientist (4), ทะเบียนเลขที่ ว-323-จ-9447

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459152
Date Received : Jun 06, 2024
Date Reported : Jun 13, 2024
Report Number : 3002680-1

Sample Number	2459152-1
Sampled Date	Jun 06, 2024 10:11 AM
Sample Description	Wastewater
Contract ID	L_WHA EIE_003_2563 **Plot** G.18/2, G.20/1, H.28/1, H.34/1, PW18/1, PW.19, PW.20 **Site** PTT Global Chemical Public Company Limited
Location	จุดที่ 2
Date Analysis Commenced	Jun 06, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

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	≤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	<25	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	3800	(1)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤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).
(1) Total Dissolved Solids when discharged to receiving water having TDS > 3,000 mg/L, TDS in the to-be-discharged wastewater can exceed the TDS already found in the receiving water by not higher than 5,000 mg/L.
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-จ-0005

Remark :
LOD : Limit of Detection

Technical Management — Thanita Kulsuriwong, Scientist (4), ทะเบียนเลขที่ ว-323-จ-9447

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459152
Date Received : Jun 06, 2024
Date Reported : Jun 13, 2024
Report Number : 3002680-1

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

Technical Management Thanita Kulsuriwong
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9447

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

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

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459145
Date Received : Jun 07, 2024
Date Reported : Jun 13, 2024
Report Number : 3002629-1

Sample Number	2459145-1
Sampled Date	Jun 07, 2024 10:00 AM
Sample Description	Wastewater
Contract ID	L_EIE_001_2552 **Plot** H-20-22 **Site** PTT Global Chemical Public Company Limited
Location	Station - 1 (Admin)
Date Analysis Commenced	Jun 07, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	95.8	≤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	235	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	5	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.2	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	476	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	40	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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 Chonticha Subongkoch
Scientist (3)
ทะเบียนเลขที่ ว-323-ล-9449

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

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

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459162
Date Received : Jun 07, 2024
Date Reported : Jun 13, 2024
Report Number : 3002698-1

Sample Number	2459162-1
Sampled Date	Jun 07, 2024 9:35 AM
Sample Description	Wastewater
Contract ID	L_EIE_002_2552 **Plot** H-20-22 **Site** PTT Global Chemical Public Company Limited
Location	Station - 2 (Factory)
Date Analysis Commenced	Jun 07, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	7.2	≤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
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	7880	(1)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	20	≤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).
(1) Total Dissolved Solids when discharged to receiving water having TDS > 3,000 mg/L, TDS in the to-be-discharged wastewater can exceed the TDS already found in the receiving water by not higher than 5,000 mg/L.
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

Technical Management Chonticha Subongkoch
Scientist (3)
ทะเบียนเลขที่ ว-323-ล-9449

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459162
Date Received : Jun 07, 2024
Date Reported : Jun 13, 2024
Report Number : 3002698-1

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 Chonticha Subongkoch
Scientist (3)
ทะเบียนเลขที่ ว-323-ล-9449

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

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

Analysis / Test Report

TESTING No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459144
Date Received : Jun 10, 2024
Date Reported : Jun 17, 2024
Report Number : 3002625-1

Sample Number	2459144-1
Sampled Date	Jun 10, 2024 1:45 PM
Sample Description	Wastewater
Contract ID	L_EIE_004_2553 **Plot** H-23A,H-31 **Site** PTT Global Chemical Public Company Limited
Location	Bis - Phenol A
Date Analysis Commenced	Jun 10, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	5.7	≤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	36	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	776	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	7	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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 Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9446

Approved by D. Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-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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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Analysis / Test Report

TESTING No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459148
Date Received : Jun 07, 2024
Date Reported : Jun 13, 2024
Report Number : 3002682-1

Sample Number	2459148-1
Sampled Date	Jun 07, 2024 3:00 PM
Sample Description	Wastewater
Contract ID	L_WHA EIE_004_2563 **Plot** H.13/1 **Site** Quechen Silica (Thailand) Co.,Ltd.
Location	Domestic wastewater
Date Analysis Commenced	Jun 07, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	9.7	≤200	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	31	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	288	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

Remark :
- LOD : Limit of Detection
- "<" : 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 Chonticha
Chonticha Subongkoch
Scientist (3)
ทะเบียนเลขที่ ว-323-ล-9449

Approved by D. Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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

Analysis / Test Report

TESTING No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459129
Date Received : Jun 06, 2024
Date Reported : Jun 13, 2024
Report Number : 3002615-1

Sample Number	2459129-1
Sampled Date	Jun 06, 2024 9:54 AM
Sample Description	Wastewater
Contract ID	L_EIE_005_2550 **Plot** G-71 **Site** Rockwool (Thailand) Limited.
Date Analysis Commenced	Jun 06, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	195	≤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	426	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	8	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	504	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	83	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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 Thanita K.
Thanita Kulsuriwong
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9447

Approved by D. Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

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

Analysis / Test Report

TESTING No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459166
Date Received : Jun 07, 2024
Date Reported : Jun 13, 2024
Report Number : 3002703-1

Sample Number	2459166-1
Sampled Date	Jun 07, 2024 3:15 PM
Sample Description	Wastewater
Contract ID	L_EIE_001_2558 **Plot** H-15 **Site** S and L Specialty Polymers Co.,Ltd.
Location	Station 1
Date Analysis Commenced	Jun 07, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Temperature *	Degree C	-	-	33.3	≤45	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	548	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

Remark :
- LOD : Limit of Detection

Technical Management Chonticha
Chonticha Subongkoch
Scientist (3)
ทะเบียนเลขที่ ว-323-ล-9449

Approved by D. Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-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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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459166
Date Received : Jun 07, 2024
Date Reported : Jun 13, 2024
Report Number : 3002703-1

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

Technical Management Chontichak
Chonticha Subongkoch
Scientist (3)
ทะเบียนเลขที่ ว-323-ล-9449

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459168
Date Received : Jun 07, 2024
Date Reported : Jun 18, 2024
Report Number : 3002704-1

Sample Number	2459168-1
Sampled Date	Jun 07, 2024 3:20 PM
Sample Description	Wastewater
Contract ID	L_EIE_002_2558 **Plot** H-15 **Site** S and L Specialty Polymers Co.,Ltd.
Location	Station 2
Date Analysis Commenced	Jun 07, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	7.2	≤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	-	40	72	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 C	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.2	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	36.5	≤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	19900	(1)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	5	≤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).
(1) Total Dissolved Solids when discharged to receiving water having TDS > 3,000 mg/L, TDS in the to-be-discharged wastewater can exceed the TDS already found in the receiving water by not higher than 5,000 mg/L.
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

Technical Management Chontichak
Chonticha Subongkoch
Scientist (3)
ทะเบียนเลขที่ ว-323-ล-9449

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459168
Date Received : Jun 07, 2024
Date Reported : Jun 18, 2024
Report Number : 3002704-1

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 Chontichak
Chonticha Subongkoch
Scientist (3)
ทะเบียนเลขที่ ว-323-ล-9449

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459167
Date Received : Jun 07, 2024
Date Reported : Jun 13, 2024
Report Number : 3002707-1

Sample Number	2459167-1
Sampled Date	Jun 07, 2024 10:15 AM
Sample Description	Wastewater
Contract ID	L_EIE_003_2558 **Plot** H-45 **Site** SEKISUI SPECIALTY CHEMICALS (THAILAND) CO.,LTD.
Date Analysis Commenced	Jun 07, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.2	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	34.2	≤45	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	320	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

Remark :
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Technical Management Chontichak
Chonticha Subongkoch
Scientist (3)
ทะเบียนเลขที่ ว-323-ล-9449

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459167
Date Received : Jun 07, 2024
Date Reported : Jun 13, 2024
Report Number : 3002707-1

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

Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459121
Date Received : Jun 06, 2024
Date Reported : Jun 13, 2024
Report Number : 3002599-1

Sample Number	2459121-1
Sampled Date	Jun 06, 2024 2:18 PM
Sample Description	Wastewater
Contract ID	L_EIE_013_2550 **Plot** G-10 **Site** Siam Stabilizers & Chemicals Co.,Ltd.
Date Analysis Commenced	Jun 06, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	88.4	≤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	314	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	10	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	492	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	87	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

Remark :
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Technical Management Chontichak
Chonticha Subongkoch
Scientist (3)
ทะเบียนเลขที่ ว-323-ล-9449

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

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

Technical Management Thanitak.
Thanita Kulsuriwong
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9447

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

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Analysis / Test Report

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No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459159
Date Received : Jun 06, 2024
Date Reported : Jun 13, 2024
Report Number : 3002671-1

Sample Number	2459159-1
Sampled Date	Jun 06, 2024 3:07 PM
Sample Description	Wastewater
Contract ID	L_EIE_026_2550 **Plot** G-05 **Site** Thai Ethoxylate Co.,Ltd.
Date Analysis Commenced	Jun 06, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, some solid and a lot of turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	44.2	≤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	179	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Formaldehyde	mg/L	0.03	0.1	Not Detected	≤1	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed.,2004	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.3	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	368	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	29	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

Remark :
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Technical Management Thanitak.
Thanita Kulsuriwong
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9447

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459159
Date Received : Jun 06, 2024
Date Reported : Jun 13, 2024
Report Number : 3002671-1

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

Technical Management Thanitak.
Thanita Kulsuriwong
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9447

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

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TESTING No.0042

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18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459134
Date Received : Jun 11, 2024
Date Reported : Jun 17, 2024
Report Number : 3002645-1

Sample Number	2459134-1
Sampled Date	Jun 11, 2024 3:10 PM
Sample Description	Wastewater
Contract ID	L_EIE_016_2550 **Plot** G-51 **Site** Thai Pet Resin Co.,Ltd.
Location	Station - 1
Date Analysis Commenced	Jun 11, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, a lot of solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	15.3	≤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	55	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	960	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	33	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

Remark :
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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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Technical Management Chontichak
Chonticha Subongkoch
Scientist (3)
ทะเบียนเลขที่ ว-323-ส-9449

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-9442

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

Analysis / Test Report

TESTING No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459160
Date Received : Jun 06, 2024
Date Reported : Jun 13, 2024
Report Number : 3002692-1

Sample Number	2459160-1
Sampled Date	Jun 06, 2024 2:49 PM
Sample Description	Wastewater
Contract ID	L_EIE_021_2550 **Plot** G-04 **Site** Vanachai Chemical Industries Co.,Ltd.
Date Analysis Commenced	Jun 06, 2024
Condition of Sample	Contained in two amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Colorless, some odour, solid and no turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Formaldehyde	mg/L	0.03	0.1	Not Detected	≤1	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed ,2004	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	228	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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.

Technical Management Thanitak.
Thanita Kulsuriwong
Scientist (4)
ทะเบียนเลขที่ ว-323-ส-9447

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-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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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company
www.alsglobal.com

Analysis / Test Report

TESTING No.0042

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459160
Date Received : Jun 06, 2024
Date Reported : Jun 13, 2024
Report Number : 3002692-1

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

Technical Management Thanitak.
Thanita Kulsuriwong
Scientist (4)
ทะเบียนเลขที่ ว-323-ส-9447

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-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 : WHA Utilities and Power Public Company Limited
18, Pakornsongkhrahraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459139
Date Received : Jun 06, 2024
Date Reported : Jun 13, 2024
Report Number : 3002660-1

Sample Number	2459139-1
Sampled Date	Jun 06, 2024 10:44 AM
Sample Description	Wastewater
Contract ID	L_EIE_004_2558 **Plot** G.18 G.19 P.7 **Site** Vencorex (Thailand) Co.,Ltd.
Date Analysis Commenced	Jun 06, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, a lot of solid and some turbid

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	≤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	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	30	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	9	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ส-0005

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 Thanitak.
Thanita Kulsuriwong
Scientist (4)
ทะเบียนเลขที่ ว-323-ส-9447

Approved by D.Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ส-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 : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459143
Date Received :Jun 06, 2024
Date Reported :Jun 13, 2024
Report Number :3002593-1

Sample Number	2459143-1
Sampled Date	Jun 06, 2024 1:55 PM
Sample Description	Wastewater
Contract ID	L_EIE_022_2550 **Plot** G-01 **Site** Zeon Chemical (Thailand) Co.,Ltd.
Date Analysis Commenced	Jun 06, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, a lot of odour, solid and some turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
BOD (5 days at 20 Degree C)	mg/L	-	2.0	12.0	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	60	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	7.7	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1960	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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 Thanita K.
Thanita Kulsuriwong
Scientist (4)
ทะเบียนเลขที่ ว-323-ล-9447

Approved by D Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of the 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 : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Factory I Monthly
Project Location : WHA EIE

Lot ID: 2459147
Date Received : Jun 07, 2024
Date Reported : Jun 13, 2024
Report Number : 3002674-1

Sample Number	2459147-1
Sampled Date	Jun 07, 2024 10:25 AM
Sample Description	Wastewater
Contract ID	L_WHA EIE_001_2563 **Plot** H-49 **Site** Zeon Chemicals Asia Co.,Ltd.
Date Analysis Commenced	Jun 07, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)
Physical Property	Yellow, some odour, solid and no turbid

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	≤200	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	≤400	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	5	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	2410	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Amendment details report of Environmental Health Impact Assessment Report of WHA Eastern Industrial Estate (Map Ta Put), 4th edition 2020, B.E. 2563 (Expansion)
Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-ล-0005

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 Chonticha
Chonticha Subongkoch
Scientist (3)
ทะเบียนเลขที่ ว-323-ล-9449

Approved by D Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ล-9442

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of the 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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ระดับเสียงโดยทั่วไป

Analysis / Test Report

TESTING
No.0042

Client : WHA Eastern Industrial Estate Co., Ltd.
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Monitoring
Project Location : WHA EIE

Lot ID: 2422830
Date Received : Mar 07, 2024
Date Reported : Mar 19, 2024
Report Number: 2933671-1 Rev. No.1

Sample Number 2422830-1
Parameter Noise (Leq 24 hrs)
Location ริมรั้วนิคมฯ ทางด้านทิศเหนือ (บริเวณที่อยู่ใกล้เคียงพื้นที่ชุมชนมากที่สุด)(N1) (GPS 47P 729363, 1405578)
Measurement Date Mar 01 - Mar 02, 2024
Measurement by Saknarin Jaraskay
Sound Level meter Serial No. 597169

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
12:00 PM - 01:00 PM	57.6	94.2	46.4
01:00 PM - 02:00 PM	55.3	80.3	47.9
02:00 PM - 03:00 PM	52.5	89.7	48.5
03:00 PM - 04:00 PM	52.1	83.3	48.5
04:00 PM - 05:00 PM	55.8	82.2	48.1
05:00 PM - 06:00 PM	62.8	97.0	47.6
06:00 PM - 07:00 PM	51.9	72.2	48.8
07:00 PM - 08:00 PM	51.1	75.0	48.8
08:00 PM - 09:00 PM	50.1	69.4	48.6
09:00 PM - 10:00 PM	50.7	75.3	48.6
10:00 PM - 11:00 PM	50.2	73.2	48.6
11:00 PM - 12:00 AM	49.9	58.5	48.9
12:00 AM - 01:00 AM	50.1	57.9	49.1
01:00 AM - 02:00 AM	49.4	56.4	48.4
02:00 AM - 03:00 AM	48.9	56.1	48.1
03:00 AM - 04:00 AM	52.9	77.8	48.0
04:00 AM - 05:00 AM	49.2	68.3	48.2
05:00 AM - 06:00 AM	50.3	78.2	47.8
06:00 AM - 07:00 AM	51.0	68.5	48.3
07:00 AM - 08:00 AM	51.9	73.4	48.4
08:00 AM - 09:00 AM	51.6	75.8	47.9
09:00 AM - 10:00 AM	51.6	74.0	48.8
10:00 AM - 11:00 AM	49.8	65.0	48.1
11:00 AM - 12:00 PM	51.2	73.9	47.9
Leq Average 24 hrs. (dB(A))	53.8		
Lmax (dB(A))		97.0	
L90 (dB(A))			48.3
Ldn (dB(A))	57.8		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548
Remark The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.
Note : This Analysis test report is reissued to supersede report No.2933671-1, Date Reported : Mar 12, 2024 due to revise sample information.

Technical Management Thanita Kulsuriwong, Scientist (4)
Approved by Supot Salamteh, Section Head

Analysis / Test Report

TESTING
No.0042

Client : WHA Eastern Industrial Estate Co., Ltd.
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Monitoring
Project Location : WHA EIE

Lot ID: 2422830
Date Received : Mar 07, 2024
Date Reported : Mar 19, 2024
Report Number: 2933672-1 Rev. No.1

Sample Number 2422830-2
Parameter Noise (Leq 24 hrs)
Location ริมรั้วนิคมฯ ทางด้านทิศเหนือ (บริเวณที่อยู่ใกล้เคียงพื้นที่ชุมชนมากที่สุด)(N1) (GPS 47P 729363, 1405578)
Measurement Date Mar 02 - Mar 03, 2024
Measurement by Saknarin Jaraskay
Sound Level meter Serial No. 597169

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
12:00 PM - 01:00 PM	50.7	75.5	47.7
01:00 PM - 02:00 PM	50.1	63.7	47.8
02:00 PM - 03:00 PM	50.2	65.9	47.8
03:00 PM - 04:00 PM	50.3	65.9	47.8
04:00 PM - 05:00 PM	51.8	73.0	48.2
05:00 PM - 06:00 PM	50.8	70.4	48.0
06:00 PM - 07:00 PM	51.4	71.3	48.2
07:00 PM - 08:00 PM	49.8	76.3	48.1
08:00 PM - 09:00 PM	50.8	77.5	48.4
09:00 PM - 10:00 PM	49.5	68.0	48.2
10:00 PM - 11:00 PM	49.6	61.8	48.3
11:00 PM - 12:00 AM	50.1	67.0	48.6
12:00 AM - 01:00 AM	49.6	68.1	48.2
01:00 AM - 02:00 AM	49.6	68.3	48.0
02:00 AM - 03:00 AM	48.4	58.6	47.6
03:00 AM - 04:00 AM	48.3	56.7	47.6
04:00 AM - 05:00 AM	47.8	61.4	46.3
05:00 AM - 06:00 AM	50.3	73.8	45.8
06:00 AM - 07:00 AM	58.2	82.8	46.2
07:00 AM - 08:00 AM	58.1	76.8	50.8
08:00 AM - 09:00 AM	54.4	69.9	49.0
09:00 AM - 10:00 AM	53.1	77.3	47.7
10:00 AM - 11:00 AM	57.0	78.7	47.5
11:00 AM - 12:00 PM	50.9	68.2	47.7
Leq Average 24 hrs. (dB(A))	52.5		
Lmax (dB(A))		82.8	
L90 (dB(A))			47.8
Ldn (dB(A))	58.3		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548
Remark The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.
Note : This Analysis test report is reissued to supersede report No.2933672-1, Date Reported : Mar 12, 2024 due to revise sample information.

Technical Management Thanita Kulsuriwong, Scientist (4)
Approved by Supot Salamteh, Section Head

Analysis / Test Report

TESTING
No.0042

Client : WHA Eastern Industrial Estate Co., Ltd.
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Monitoring
Project Location : WHA EIE

Lot ID: 2422830
Date Received : Mar 07, 2024
Date Reported : Mar 19, 2024
Report Number: 2933673-1 Rev. No.1

Sample Number 2422830-3
Parameter Noise (Leq 24 hrs)
Location ริมรั้วนิคมฯ ทางด้านทิศเหนือ (บริเวณที่อยู่ใกล้เคียงพื้นที่ชุมชนมากที่สุด)(N1) (GPS 47P 729363, 1405578)
Measurement Date Mar 03 - Mar 04, 2024
Measurement by Saknarin Jaraskay
Sound Level meter Serial No. 597169

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
12:00 PM - 01:00 PM	52.1	76.9	47.5
01:00 PM - 02:00 PM	50.8	73.9	47.4
02:00 PM - 03:00 PM	49.6	64.4	47.0
03:00 PM - 04:00 PM	49.9	66.2	47.7
04:00 PM - 05:00 PM	51.8	73.6	48.2
05:00 PM - 06:00 PM	51.8	70.3	48.9
06:00 PM - 07:00 PM	53.3	75.9	49.2
07:00 PM - 08:00 PM	52.9	84.9	49.8
08:00 PM - 09:00 PM	52.7	81.9	49.6
09:00 PM - 10:00 PM	50.4	63.0	49.4
10:00 PM - 11:00 PM	50.7	61.0	49.7
11:00 PM - 12:00 AM	51.6	75.9	50.0
12:00 AM - 01:00 AM	51.1	61.5	50.2
01:00 AM - 02:00 AM	50.5	58.1	49.4
02:00 AM - 03:00 AM	50.5	71.8	49.1
03:00 AM - 04:00 AM	51.4	77.5	49.0
04:00 AM - 05:00 AM	50.1	61.9	48.9
05:00 AM - 06:00 AM	50.0	75.1	48.3
06:00 AM - 07:00 AM	50.6	63.9	48.8
07:00 AM - 08:00 AM	54.6	81.8	49.5
08:00 AM - 09:00 AM	51.7	65.8	47.2
09:00 AM - 10:00 AM	50.7	70.6	47.1
10:00 AM - 11:00 AM	51.1	66.3	49.1
11:00 AM - 12:00 PM	50.8	63.3	48.4
Leq Average 24 hrs. (dB(A))	51.5		
Lmax (dB(A))		84.9	
L90 (dB(A))			48.9
Ldn (dB(A))	57.3		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548
Remark The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.
Note : This Analysis test report is reissued to supersede report No.2933673-1, Date Reported : Mar 12, 2024 due to revise sample information.

Technical Management Thanita Kulsuriwong, Scientist (4)
Approved by Supot Salamteh, Section Head

Analysis / Test Report

TESTING
No.0042

Client : WHA Eastern Industrial Estate Co., Ltd.
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Monitoring
Project Location : WHA EIE

Lot ID: 2422830
Date Received : Mar 07, 2024
Date Reported : Mar 19, 2024
Report Number: 2933674-1 Rev. No.1

Sample Number 2422830-4
Parameter Noise (Leq 24 hrs)
Location ริมรั้วนิคมฯ ทางด้านทิศเหนือ (บริเวณที่อยู่ใกล้เคียงพื้นที่ชุมชนมากที่สุด)(N1) (GPS 47P 729363, 1405578)
Measurement Date Mar 04 - Mar 05, 2024
Measurement by Saknarin Jaraskay
Sound Level meter Serial No. 597169

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
12:00 PM - 01:00 PM	50.4	64.3	48.3
01:00 PM - 02:00 PM	51.0	65.6	48.5
02:00 PM - 03:00 PM	51.3	70.5	49.0
03:00 PM - 04:00 PM	51.8	65.1	49.4
04:00 PM - 05:00 PM	51.9	69.0	49.4
05:00 PM - 06:00 PM	52.3	72.6	49.6
06:00 PM - 07:00 PM	52.7	75.9	49.7
07:00 PM - 08:00 PM	52.0	74.4	49.7
08:00 PM - 09:00 PM	51.1	64.8	49.7
09:00 PM - 10:00 PM	50.8	67.3	49.5
10:00 PM - 11:00 PM	50.8	58.8	49.7
11:00 PM - 12:00 AM	50.9	66.5	49.7
12:00 AM - 01:00 AM	51.0	64.1	49.8
01:00 AM - 02:00 AM	51.2	71.3	49.6
02:00 AM - 03:00 AM	50.0	66.7	48.9
03:00 AM - 04:00 AM	50.0	70.4	48.8
04:00 AM - 05:00 AM	50.3	63.3	48.9
05:00 AM - 06:00 AM	50.7	69.2	49.0
06:00 AM - 07:00 AM	52.6	74.4	49.7
07:00 AM - 08:00 AM	53.6	75.7	50.1
08:00 AM - 09:00 AM	52.6	70.8	49.2
09:00 AM - 10:00 AM	52.7	78.4	48.8
10:00 AM - 11:00 AM	58.6	84.2	48.1
11:00 AM - 12:00 PM	52.1	75.8	48.5
Leq Average 24 hrs. (dB(A))	52.3		
Lmax (dB(A))		84.2	
L90 (dB(A))			49.4
Ldn (dB(A))	57.7		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548
Remark The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.
Note : This Analysis test report is reissued to supersede report No.2933674-1, Date Reported : Mar 12, 2024 due to revise sample information.

Technical Management Thanita Kulsuriwong, Scientist (4)
Approved by Supot Salamteh, Section Head

Analysis / Test Report

TESTING
No.0042

Client : WHA Eastern Industrial Estate Co., Ltd.
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Monitoring
Project Location : WHA EIE

Lot ID: 2422830
Date Received : Mar 07, 2024
Date Reported : Mar 19, 2024
Report Number: 2933675-1 Rev. No.1

Sample Number 2422830-5
Parameter Noise (Leq 24 hrs)
Location วันวิจิตมา ทางด่วนทิศใต้ (บริเวณที่อยู่ใกล้เคียงพื้นที่ชุมชนมากที่สุด)(N2) (GPS 47P 730277, 1403898)
Measurement Date Mar 01 - Mar 02, 2024
Measurement by Saknarin Jaraskay
Sound Level meter Serial No. 597168

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	55.3	72.8	50.9
12:00 PM - 01:00 PM	55.9	80.5	50.9
01:00 PM - 02:00 PM	55.1	76.6	51.2
02:00 PM - 03:00 PM	61.4	84.9	51.5
03:00 PM - 04:00 PM	58.6	87.1	52.0
04:00 PM - 05:00 PM	57.7	77.6	53.2
05:00 PM - 06:00 PM	58.0	85.1	53.1
06:00 PM - 07:00 PM	58.1	79.3	53.4
07:00 PM - 08:00 PM	56.1	77.2	52.8
08:00 PM - 09:00 PM	57.0	83.7	52.9
09:00 PM - 10:00 PM	55.4	71.4	52.8
10:00 PM - 11:00 PM	56.2	81.7	52.7
11:00 PM - 12:00 AM	54.6	65.2	52.9
12:00 AM - 01:00 AM	57.9	78.2	52.7
01:00 AM - 02:00 AM	56.9	78.0	52.1
02:00 AM - 03:00 AM	59.2	79.7	52.1
03:00 AM - 04:00 AM	61.8	92.6	52.1
04:00 AM - 05:00 AM	58.3	82.0	52.3
05:00 AM - 06:00 AM	62.2	85.2	52.5
06:00 AM - 07:00 AM	60.2	88.1	53.4
07:00 AM - 08:00 AM	64.3	86.0	52.7
08:00 AM - 09:00 AM	55.4	73.2	51.5
09:00 AM - 10:00 AM	54.8	68.0	51.2
10:00 AM - 11:00 AM	56.3	78.9	51.1
Leq Average 24 hrs. (dB(A))	58.6		
Lmax (dB(A))		92.6	
L90 (dB(A))			52.3
Ldn (dB(A))	65.5		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องการหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องการหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548
Remark The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.
Note : This Analysis test report is reissued to supersede report No.2933675-1, Date Reported : Mar 12, 2024 due to revise sample information.

Technical Management Thanita Kulsuriwong, Scientist (4)
Approved by Supot Salamteh, Section Head

Analysis / Test Report

TESTING
No.0042

Client : WHA Eastern Industrial Estate Co., Ltd.
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Monitoring
Project Location : WHA EIE

Lot ID: 2422830
Date Received : Mar 07, 2024
Date Reported : Mar 19, 2024
Report Number: 2933676-1 Rev. No.1

Sample Number 2422830-6
Parameter Noise (Leq 24 hrs)
Location วันวิจิตมา ทางด่วนทิศใต้ (บริเวณที่อยู่ใกล้เคียงพื้นที่ชุมชนมากที่สุด)(N2) (GPS 47P 730277, 1403898)
Measurement Date Mar 02 - Mar 03, 2024
Measurement by Saknarin Jaraskay
Sound Level meter Serial No. 597168

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	56.7	77.5	51.4
12:00 PM - 01:00 PM	56.0	77.4	50.6
01:00 PM - 02:00 PM	55.6	76.3	51.1
02:00 PM - 03:00 PM	61.8	87.7	51.0
03:00 PM - 04:00 PM	57.0	80.5	51.5
04:00 PM - 05:00 PM	57.7	77.7	52.4
05:00 PM - 06:00 PM	57.3	80.4	52.3
06:00 PM - 07:00 PM	59.0	83.8	52.8
07:00 PM - 08:00 PM	55.8	74.2	53.1
08:00 PM - 09:00 PM	55.6	76.2	52.9
09:00 PM - 10:00 PM	56.2	78.0	52.6
10:00 PM - 11:00 PM	54.6	78.5	52.4
11:00 PM - 12:00 AM	54.2	68.9	52.4
12:00 AM - 01:00 AM	59.1	83.8	52.2
01:00 AM - 02:00 AM	66.1	93.8	52.4
02:00 AM - 03:00 AM	53.5	63.7	52.1
03:00 AM - 04:00 AM	57.3	82.0	52.4
04:00 AM - 05:00 AM	61.9	83.2	52.8
05:00 AM - 06:00 AM	58.8	83.0	53.0
06:00 AM - 07:00 AM	65.4	90.1	52.9
07:00 AM - 08:00 AM	66.3	92.3	55.9
08:00 AM - 09:00 AM	58.5	76.6	53.4
09:00 AM - 10:00 AM	65.9	100.3	53.7
10:00 AM - 11:00 AM	56.7	77.2	52.1
Leq Average 24 hrs. (dB(A))	60.6		
Lmax (dB(A))		100.3	
L90 (dB(A))			52.4
Ldn (dB(A))	67.5		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องการหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องการหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548
Remark The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.
Note : This Analysis test report is reissued to supersede report No.2933676-1, Date Reported : Mar 12, 2024 due to revise sample information.

Technical Management Thanita Kulsuriwong, Scientist (4)
Approved by Supot Salamteh, Section Head

Analysis / Test Report

TESTING
No.0042

Client : WHA Eastern Industrial Estate Co., Ltd.
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Monitoring
Project Location : WHA EIE

Lot ID: 2422830
Date Received : Mar 07, 2024
Date Reported : Mar 19, 2024
Report Number: 2933677-1 Rev. No.1

Sample Number 2422830-7
Parameter Noise (Leq 24 hrs)
Location วันวิจิตมา ทางด่วนทิศใต้ (บริเวณที่อยู่ใกล้เคียงพื้นที่ชุมชนมากที่สุด)(N2) (GPS 47P 730277, 1403898)
Measurement Date Mar 03 - Mar 04, 2024
Measurement by Saknarin Jaraskay
Sound Level meter Serial No. 597168

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	56.8	77.2	51.9
12:00 PM - 01:00 PM	56.5	78.8	51.1
01:00 PM - 02:00 PM	55.9	77.5	51.4
02:00 PM - 03:00 PM	55.5	73.2	51.6
03:00 PM - 04:00 PM	68.5	92.0	52.2
04:00 PM - 05:00 PM	57.9	82.2	52.8
05:00 PM - 06:00 PM	56.3	75.8	52.8
06:00 PM - 07:00 PM	57.4	78.5	53.2
07:00 PM - 08:00 PM	55.7	76.9	53.0
08:00 PM - 09:00 PM	55.7	79.3	53.2
09:00 PM - 10:00 PM	55.4	72.7	53.3
10:00 PM - 11:00 PM	57.3	81.1	53.3
11:00 PM - 12:00 AM	56.9	78.2	53.7
12:00 AM - 01:00 AM	55.3	65.1	54.1
01:00 AM - 02:00 AM	56.8	70.5	54.4
02:00 AM - 03:00 AM	60.7	87.7	53.8
03:00 AM - 04:00 AM	54.6	70.5	53.0
04:00 AM - 05:00 AM	59.6	83.0	53.2
05:00 AM - 06:00 AM	63.0	87.0	53.6
06:00 AM - 07:00 AM	59.7	82.1	54.5
07:00 AM - 08:00 AM	60.2	82.2	54.2
08:00 AM - 09:00 AM	63.2	82.9	53.3
09:00 AM - 10:00 AM	57.4	78.7	52.5
10:00 AM - 11:00 AM	56.1	75.3	51.6
Leq Average 24 hrs. (dB(A))	59.8		
Lmax (dB(A))		92.0	
L90 (dB(A))			53.2
Ldn (dB(A))	65.6		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องการหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องการหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548
Remark The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.
Note : This Analysis test report is reissued to supersede report No.2933677-1, Date Reported : Mar 12, 2024 due to revise sample information.

Technical Management Thanita Kulsuriwong, Scientist (4)
Approved by Supot Salamteh, Section Head

Analysis / Test Report

TESTING
No.0042

Client : WHA Eastern Industrial Estate Co., Ltd.
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Monitoring
Project Location : WHA EIE

Lot ID: 2422830
Date Received : Mar 07, 2024
Date Reported : Mar 19, 2024
Report Number: 2933678-1 Rev. No.1

Sample Number 2422830-8
Parameter Noise (Leq 24 hrs)
Location วันวิจิตมา ทางด่วนทิศใต้ (บริเวณที่อยู่ใกล้เคียงพื้นที่ชุมชนมากที่สุด)(N2) (GPS 47P 730277, 1403898)
Measurement Date Mar 04 - Mar 05, 2024
Measurement by Saknarin Jaraskay
Sound Level meter Serial No. 597168

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	56.8	78.4	51.7
12:00 PM - 01:00 PM	56.1	78.1	51.3
01:00 PM - 02:00 PM	54.7	73.5	51.1
02:00 PM - 03:00 PM	61.2	85.2	51.7
03:00 PM - 04:00 PM	55.8	76.7	51.9
04:00 PM - 05:00 PM	58.9	81.3	53.1
05:00 PM - 06:00 PM	58.3	77.6	54.4
06:00 PM - 07:00 PM	58.3	78.5	54.2
07:00 PM - 08:00 PM	56.7	77.7	53.7
08:00 PM - 09:00 PM	56.1	78.1	53.4
09:00 PM - 10:00 PM	56.2	80.1	52.6
10:00 PM - 11:00 PM	54.4	71.8	52.8
11:00 PM - 12:00 AM	57.4	84.9	53.0
12:00 AM - 01:00 AM	55.4	76.0	52.5
01:00 AM - 02:00 AM	53.6	65.6	52.2
02:00 AM - 03:00 AM	53.8	69.7	52.4
03:00 AM - 04:00 AM	59.1	87.8	52.5
04:00 AM - 05:00 AM	61.0	85.8	52.4
05:00 AM - 06:00 AM	57.0	77.1	52.9
06:00 AM - 07:00 AM	59.6	81.9	53.9
07:00 AM - 08:00 AM	59.2	81.7	53.5
08:00 AM - 09:00 AM	57.3	89.1	51.7
09:00 AM - 10:00 AM	62.1	94.9	51.3
10:00 AM - 11:00 AM	56.0	74.4	51.8
Leq Average 24 hrs. (dB(A))	57.9		
Lmax (dB(A))		94.9	
L90 (dB(A))			52.5
Ldn (dB(A))	64.0		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องการหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องการหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548
Remark The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.
Note : This Analysis test report is reissued to supersede report No.2933678-1, Date Reported : Mar 12, 2024 due to revise sample information.

Technical Management Thanita Kulsuriwong, Scientist (4)
Approved by Supot Salamteh, Section Head

Analysis / Test Report

TESTING
No.0042

Client : WHA Eastern Industrial Estate Co., Ltd.
18, Pakornsongkhrahj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Monitoring
Project Location : WHA EIE

Lot ID: 2422830
Date Received : Mar 07, 2024
Date Reported : Mar 19, 2024
Report Number: 2933679-1 Rev. No.1

Sample Number 2422830-9
Parameter Noise (Leq 24 hrs)
Location สำนักงานนิคมอุตสาหกรรมดับบลิวเอชเอะวันออก(มาบตาพุด)(N3) (GPS 47P 0730910, 1405267)
Measurement Date Mar 01 - Mar 02, 2024
Measurement by Saknarin Jaraskay
Sound Level meter Serial No. 597167

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	60.1	80.9	48.3
11:00 AM - 12:00 PM	59.5	82.6	54.5
12:00 PM - 01:00 PM	63.1	84.1	56.6
01:00 PM - 02:00 PM	64.2	94.0	56.7
02:00 PM - 03:00 PM	62.9	86.2	57.7
03:00 PM - 04:00 PM	62.7	84.1	57.7
04:00 PM - 05:00 PM	62.4	83.7	59.2
05:00 PM - 06:00 PM	60.6	81.0	58.7
06:00 PM - 07:00 PM	60.5	86.0	57.2
07:00 PM - 08:00 PM	61.1	82.7	55.8
08:00 PM - 09:00 PM	61.3	78.0	58.6
09:00 PM - 10:00 PM	59.6	72.2	58.1
10:00 PM - 11:00 PM	58.8	72.3	55.6
11:00 PM - 12:00 AM	56.4	70.3	53.9
12:00 AM - 01:00 AM	56.0	69.8	54.3
01:00 AM - 02:00 AM	58.2	83.1	54.3
02:00 AM - 03:00 AM	56.4	68.7	54.6
03:00 AM - 04:00 AM	59.1	82.8	54.1
04:00 AM - 05:00 AM	60.3	85.0	57.6
05:00 AM - 06:00 AM	57.7	84.4	51.9
06:00 AM - 07:00 AM	60.7	87.4	54.9
07:00 AM - 08:00 AM	61.4	85.4	55.5
08:00 AM - 09:00 AM	62.6	82.6	58.4
09:00 AM - 10:00 AM	60.2	73.1	53.6
Leq Average 24 hrs. (dB(A))	60.8		
Lmax (dB(A))		94.0	
L90 (dB(A))			55.6
Ldn (dB(A))	65.5		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548
Remark The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.
Note : This Analysis test report is reissued to supersede report No.2933679-1, Date Reported : Mar 12, 2024 due to revise sample information.

Technical Management Thanita Kulsuriwong, Scientist (4)
Approved by Supot Salamteh, Section Head

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Analysis / Test Report

TESTING
No.0042

Client : WHA Eastern Industrial Estate Co., Ltd.
18, Pakornsongkhrahj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Monitoring
Project Location : WHA EIE

Lot ID: 2422830
Date Received : Mar 07, 2024
Date Reported : Mar 19, 2024
Report Number: 2933680-1 Rev. No.1

Sample Number 2422830-10
Parameter Noise (Leq 24 hrs)
Location สำนักงานนิคมอุตสาหกรรมดับบลิวเอชเอะวันออก(มาบตาพุด)(N3) (GPS 47P 0730910, 1405267)
Measurement Date Mar 02 - Mar 03, 2024
Measurement by Saknarin Jaraskay
Sound Level meter Serial No. 597167

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	63.1	83.9	52.5
11:00 AM - 12:00 PM	62.3	81.3	52.8
12:00 PM - 01:00 PM	63.6	83.3	53.7
01:00 PM - 02:00 PM	61.5	83.3	52.6
02:00 PM - 03:00 PM	59.1	78.5	51.1
03:00 PM - 04:00 PM	58.6	72.5	50.5
04:00 PM - 05:00 PM	61.6	78.7	55.2
05:00 PM - 06:00 PM	61.3	84.3	55.2
06:00 PM - 07:00 PM	62.1	83.4	55.8
07:00 PM - 08:00 PM	58.5	69.1	57.1
08:00 PM - 09:00 PM	59.7	71.0	58.5
09:00 PM - 10:00 PM	58.6	72.8	57.6
10:00 PM - 11:00 PM	58.4	66.5	54.4
11:00 PM - 12:00 AM	58.3	74.3	53.9
12:00 AM - 01:00 AM	59.1	73.2	54.3
01:00 AM - 02:00 AM	60.1	67.7	55.7
02:00 AM - 03:00 AM	60.3	76.4	54.3
03:00 AM - 04:00 AM	60.3	76.7	53.3
04:00 AM - 05:00 AM	59.5	76.7	51.4
05:00 AM - 06:00 AM	58.0	80.1	48.4
06:00 AM - 07:00 AM	62.0	84.1	52.4
07:00 AM - 08:00 AM	64.2	81.0	57.2
08:00 AM - 09:00 AM	63.2	81.6	56.7
09:00 AM - 10:00 AM	62.4	78.0	51.8
Leq Average 24 hrs. (dB(A))	61.1		
Lmax (dB(A))		84.3	
L90 (dB(A))			53.9
Ldn (dB(A))	66.5		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548
Remark The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.
Note : This Analysis test report is reissued to supersede report No.2933680-1, Date Reported : Mar 12, 2024 due to revise sample information.

Technical Management Thanita Kulsuriwong, Scientist (4)
Approved by Supot Salamteh, Section Head

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

Life Sciences www.alsglobal.com
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Analysis / Test Report

TESTING
No.0042

Client : WHA Eastern Industrial Estate Co., Ltd.
18, Pakornsongkhrahj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Monitoring
Project Location : WHA EIE

Lot ID: 2422830
Date Received : Mar 07, 2024
Date Reported : Mar 19, 2024
Report Number: 2933681-1 Rev. No.1

Sample Number 2422830-11
Parameter Noise (Leq 24 hrs)
Location สำนักงานนิคมอุตสาหกรรมดับบลิวเอชเอะวันออก(มาบตาพุด)(N3) (GPS 47P 0730910, 1405267)
Measurement Date Mar 03 - Mar 04, 2024
Measurement by Saknarin Jaraskay
Sound Level meter Serial No. 597167

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	60.5	77.7	52.4
11:00 AM - 12:00 PM	59.4	78.3	55.5
12:00 PM - 01:00 PM	60.9	77.7	56.9
01:00 PM - 02:00 PM	61.6	83.6	57.3
02:00 PM - 03:00 PM	62.3	82.5	57.7
03:00 PM - 04:00 PM	61.1	82.9	56.8
04:00 PM - 05:00 PM	60.2	83.2	53.3
05:00 PM - 06:00 PM	62.0	84.9	59.1
06:00 PM - 07:00 PM	61.4	78.2	60.2
07:00 PM - 08:00 PM	60.1	78.0	57.2
08:00 PM - 09:00 PM	59.2	85.4	53.2
09:00 PM - 10:00 PM	58.6	80.6	54.3
10:00 PM - 11:00 PM	61.0	75.4	60.0
11:00 PM - 12:00 AM	60.2	81.1	56.3
12:00 AM - 01:00 AM	58.6	81.3	56.3
01:00 AM - 02:00 AM	60.5	79.1	56.6
02:00 AM - 03:00 AM	60.4	79.8	55.1
03:00 AM - 04:00 AM	58.7	74.3	53.5
04:00 AM - 05:00 AM	60.4	81.6	49.9
05:00 AM - 06:00 AM	60.1	82.8	57.8
06:00 AM - 07:00 AM	63.2	86.2	56.3
07:00 AM - 08:00 AM	62.3	82.5	57.7
08:00 AM - 09:00 AM	60.4	86.8	57.2
09:00 AM - 10:00 AM	62.1	83.9	57.8
Leq Average 24 hrs. (dB(A))	60.8		
Lmax (dB(A))		86.8	
L90 (dB(A))			56.6
Ldn (dB(A))	67.0		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548
Remark The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.
Note : This Analysis test report is reissued to supersede report No.2933681-1, Date Reported : Mar 12, 2024 due to revise sample information.

Technical Management Thanita Kulsuriwong, Scientist (4)
Approved by Supot Salamteh, Section Head

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

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Analysis / Test Report

TESTING
No.0042

Client : WHA Eastern Industrial Estate Co., Ltd.
18, Pakornsongkhrahj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Monitoring
Project Location : WHA EIE

Lot ID: 2422830
Date Received : Mar 07, 2024
Date Reported : Mar 19, 2024
Report Number: 2933682-1 Rev. No.1

Sample Number 2422830-12
Parameter Noise (Leq 24 hrs)
Location สำนักงานนิคมอุตสาหกรรมดับบลิวเอชเอะวันออก(มาบตาพุด)(N3) (GPS 47P 0730910, 1405267)
Measurement Date Mar 04 - Mar 05, 2024
Measurement by Saknarin Jaraskay
Sound Level meter Serial No. 597167

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	60.1	83.0	55.7
11:00 AM - 12:00 PM	60.5	80.2	56.8
12:00 PM - 01:00 PM	59.6	79.2	56.4
01:00 PM - 02:00 PM	60.7	82.4	56.8
02:00 PM - 03:00 PM	60.5	85.2	56.5
03:00 PM - 04:00 PM	60.4	84.4	56.4
04:00 PM - 05:00 PM	60.4	79.3	57.2
05:00 PM - 06:00 PM	61.8	84.1	57.3
06:00 PM - 07:00 PM	61.0	80.8	56.9
07:00 PM - 08:00 PM	61.0	80.5	56.9
08:00 PM - 09:00 PM	59.6	80.1	56.6
09:00 PM - 10:00 PM	59.2	81.8	56.4
10:00 PM - 11:00 PM	59.0	80.6	56.4
11:00 PM - 12:00 AM	58.4	83.4	56.1
12:00 AM - 01:00 AM	57.5	77.7	56.2
01:00 AM - 02:00 AM	57.4	76.2	56.1
02:00 AM - 03:00 AM	58.3	81.9	56.1
03:00 AM - 04:00 AM	57.2	73.7	56.0
04:00 AM - 05:00 AM	57.9	79.6	56.1
05:00 AM - 06:00 AM	58.5	74.4	56.5
06:00 AM - 07:00 AM	61.2	80.1	57.4
07:00 AM - 08:00 AM	62.2	79.0	57.4
08:00 AM - 09:00 AM	61.5	85.7	56.1
09:00 AM - 10:00 AM	60.4	85.5	55.8
Leq Average 24 hrs. (dB(A))	60.0		
Lmax (dB(A))		85.7	
L90 (dB(A))			56.4
Ldn (dB(A))	65.3		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548
Remark The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.
Note : This Analysis test report is reissued to supersede report No.2933682-1, Date Reported : Mar 12, 2024 due to revise sample information.

Technical Management Thanita Kulsuriwong, Scientist (4)
Approved by Supot Salamteh, Section Head

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Analysis / Test Report

TESTING
No.0042

Client : WHA Eastern Industrial Estate Co., Ltd.
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Monitoring
Project Location : WHA EIE

Lot ID: 2422830
Date Received : Mar 07, 2024
Date Reported : Mar 19, 2024
Report Number: 2933683-1 Rev. No.1

Sample Number	2422830-13
Parameter	Noise (Leq 24 hrs)
Location	วัดหนองแฟบ (N4) (GPS 47P 0729830, 1403321)
Measurement Date	Mar 01 - Mar 02, 2024
Measurement by	Saknarin Jaraskay
Sound Level meter	Serial No. 623394

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	50.8	69.6	45.3
11:00 AM - 12:00 PM	51.8	69.2	46.2
12:00 PM - 01:00 PM	52.3	76.3	45.8
01:00 PM - 02:00 PM	50.5	67.7	45.4
02:00 PM - 03:00 PM	51.9	70.0	46.2
03:00 PM - 04:00 PM	52.8	74.6	45.9
04:00 PM - 05:00 PM	60.5	85.7	45.2
05:00 PM - 06:00 PM	51.1	73.6	45.1
06:00 PM - 07:00 PM	54.1	72.0	43.3
07:00 PM - 08:00 PM	48.7	74.7	42.0
08:00 PM - 09:00 PM	44.6	62.8	41.3
09:00 PM - 10:00 PM	44.7	69.6	41.0
10:00 PM - 11:00 PM	52.3	63.0	40.7
11:00 PM - 12:00 AM	42.6	63.3	39.9
12:00 AM - 01:00 AM	52.5	64.5	39.2
01:00 AM - 02:00 AM	43.5	70.2	39.1
02:00 AM - 03:00 AM	42.4	69.0	38.7
03:00 AM - 04:00 AM	42.6	62.7	38.7
04:00 AM - 05:00 AM	43.3	64.4	39.3
05:00 AM - 06:00 AM	60.0	71.1	42.3
06:00 AM - 07:00 AM	53.1	67.1	47.9
07:00 AM - 08:00 AM	54.3	71.8	46.6
08:00 AM - 09:00 AM	53.1	69.8	46.4
09:00 AM - 10:00 AM	51.9	68.3	47.7
Leq Average 24 hrs. (dB(A))	53.0		
Lmax (dB(A))		85.7	
L90 (dB(A))			43.3
Ldn (dB(A))	59.1		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548
Remark The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.
Note : This Analysis test report is reissued to supersede report No.2933683-1, Date Reported : Mar 12, 2024 due to revise sample information.

Technical Management Thanita Kulsuriwong, Scientist (4)
Approved by Supot Salamteh, Section Head

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Analysis / Test Report

TESTING
No.0042

Client : WHA Eastern Industrial Estate Co., Ltd.
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Monitoring
Project Location : WHA EIE

Lot ID: 2422830
Date Received : Mar 07, 2024
Date Reported : Mar 19, 2024
Report Number: 2933684-1 Rev. No.1

Sample Number	2422830-14
Parameter	Noise (Leq 24 hrs)
Location	วัดหนองแฟบ (N4) (GPS 47P 0729830, 1403321)
Measurement Date	Mar 02 - Mar 03, 2024
Measurement by	Saknarin Jaraskay
Sound Level meter	Serial No. 623394

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	52.0	70.8	46.5
11:00 AM - 12:00 PM	53.0	70.4	47.4
12:00 PM - 01:00 PM	53.5	77.5	47.0
01:00 PM - 02:00 PM	51.7	68.9	46.6
02:00 PM - 03:00 PM	53.1	71.2	47.4
03:00 PM - 04:00 PM	54.0	75.8	47.1
04:00 PM - 05:00 PM	61.7	86.9	46.4
05:00 PM - 06:00 PM	52.3	74.8	46.3
06:00 PM - 07:00 PM	55.3	73.2	44.5
07:00 PM - 08:00 PM	49.9	75.9	43.2
08:00 PM - 09:00 PM	45.8	64.0	42.5
09:00 PM - 10:00 PM	45.9	70.8	42.2
10:00 PM - 11:00 PM	53.5	64.2	41.9
11:00 PM - 12:00 AM	43.8	64.5	41.1
12:00 AM - 01:00 AM	53.7	65.7	40.4
01:00 AM - 02:00 AM	44.7	71.4	40.3
02:00 AM - 03:00 AM	43.6	70.2	39.9
03:00 AM - 04:00 AM	43.8	63.9	39.9
04:00 AM - 05:00 AM	44.5	65.6	40.5
05:00 AM - 06:00 AM	61.2	72.3	43.5
06:00 AM - 07:00 AM	54.3	68.3	49.1
07:00 AM - 08:00 AM	55.5	73.0	47.8
08:00 AM - 09:00 AM	54.3	71.0	47.6
09:00 AM - 10:00 AM	53.1	69.5	48.9
Leq Average 24 hrs. (dB(A))	54.2		
Lmax (dB(A))		86.9	
L90 (dB(A))			44.5
Ldn (dB(A))	60.3		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548
Remark The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.
Note : This Analysis test report is reissued to supersede report No.2933684-1, Date Reported : Mar 12, 2024 due to revise sample information.

Technical Management Thanita Kulsuriwong, Scientist (4)
Approved by Supot Salamteh, Section Head

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Life Sciences www.alsglobal.com
RIGHT SOLUTIONS RIGHT PARTNER
479-101/ EMAIL S:\Reports_Air Noise.rpt (9:18AM)

Analysis / Test Report

TESTING
No.0042

Client : WHA Eastern Industrial Estate Co., Ltd.
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Monitoring
Project Location : WHA EIE

Lot ID: 2422830
Date Received : Mar 07, 2024
Date Reported : Mar 19, 2024
Report Number: 2933685-1 Rev. No.1

Sample Number	2422830-15
Parameter	Noise (Leq 24 hrs)
Location	วัดหนองแฟบ (N4) (GPS 47P 0729830, 1403321)
Measurement Date	Mar 03 - Mar 04, 2024
Measurement by	Saknarin Jaraskay
Sound Level meter	Serial No. 623394

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	53.4	72.2	47.9
11:00 AM - 12:00 PM	54.4	71.8	48.8
12:00 PM - 01:00 PM	54.9	78.9	48.4
01:00 PM - 02:00 PM	53.1	70.3	48.0
02:00 PM - 03:00 PM	54.5	72.6	48.8
03:00 PM - 04:00 PM	55.4	77.2	48.5
04:00 PM - 05:00 PM	63.1	88.3	47.8
05:00 PM - 06:00 PM	53.7	76.2	47.7
06:00 PM - 07:00 PM	56.7	74.6	45.9
07:00 PM - 08:00 PM	51.3	77.3	44.6
08:00 PM - 09:00 PM	47.2	65.4	43.9
09:00 PM - 10:00 PM	47.3	72.2	43.6
10:00 PM - 11:00 PM	54.9	65.6	43.3
11:00 PM - 12:00 AM	45.2	65.9	42.5
12:00 AM - 01:00 AM	55.1	67.1	41.8
01:00 AM - 02:00 AM	46.1	72.8	41.7
02:00 AM - 03:00 AM	45.0	71.6	41.3
03:00 AM - 04:00 AM	45.2	65.3	41.3
04:00 AM - 05:00 AM	45.9	67.0	41.9
05:00 AM - 06:00 AM	62.6	73.7	44.9
06:00 AM - 07:00 AM	55.7	69.7	50.5
07:00 AM - 08:00 AM	56.9	74.4	49.2
08:00 AM - 09:00 AM	55.7	72.4	49.0
09:00 AM - 10:00 AM	54.5	70.9	50.3
Leq Average 24 hrs. (dB(A))	55.6		
Lmax (dB(A))		88.3	
L90 (dB(A))			45.9
Ldn (dB(A))	61.7		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548
Remark The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.
Note : This Analysis test report is reissued to supersede report No.2933685-1, Date Reported : Mar 12, 2024 due to revise sample information.

Technical Management Thanita Kulsuriwong, Scientist (4)
Approved by Supot Salamteh, Section Head

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Life Sciences www.alsglobal.com
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479-101/ EMAIL S:\Reports_Air Noise.rpt (9:18AM)

Analysis / Test Report

TESTING
No.0042

Client : WHA Eastern Industrial Estate Co., Ltd.
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Monitoring
Project Location : WHA EIE

Lot ID: 2422830
Date Received : Mar 07, 2024
Date Reported : Mar 19, 2024
Report Number: 2933686-1 Rev. No.1

Sample Number	2422830-16
Parameter	Noise (Leq 24 hrs)
Location	วัดหนองแฟบ (N4) (GPS 47P 0729830, 1403321)
Measurement Date	Mar 04 - Mar 05, 2024
Measurement by	Saknarin Jaraskay
Sound Level meter	Serial No. 623394

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	52.6	71.4	47.1
11:00 AM - 12:00 PM	53.6	71.0	48.0
12:00 PM - 01:00 PM	54.1	78.1	47.6
01:00 PM - 02:00 PM	52.3	69.5	47.2
02:00 PM - 03:00 PM	53.7	71.8	48.0
03:00 PM - 04:00 PM	54.6	76.4	47.7
04:00 PM - 05:00 PM	62.3	87.5	47.0
05:00 PM - 06:00 PM	52.9	75.4	46.9
06:00 PM - 07:00 PM	55.9	73.8	45.1
07:00 PM - 08:00 PM	50.5	76.5	43.8
08:00 PM - 09:00 PM	46.4	64.6	43.1
09:00 PM - 10:00 PM	46.5	71.4	42.8
10:00 PM - 11:00 PM	54.1	64.8	42.5
11:00 PM - 12:00 AM	44.4	65.1	41.7
12:00 AM - 01:00 AM	54.3	66.3	41.0
01:00 AM - 02:00 AM	45.3	72.0	40.9
02:00 AM - 03:00 AM	44.2	70.8	40.5
03:00 AM - 04:00 AM	44.4	64.5	40.5
04:00 AM - 05:00 AM	45.1	66.2	41.1
05:00 AM - 06:00 AM	61.8	72.9	44.1
06:00 AM - 07:00 AM	54.9	68.9	49.7
07:00 AM - 08:00 AM	56.1	73.6	48.4
08:00 AM - 09:00 AM	54.9	71.6	48.2
09:00 AM - 10:00 AM	53.7	70.1	49.5
Leq Average 24 hrs. (dB(A))	54.8		
Lmax (dB(A))		87.5	
L90 (dB(A))			45.1
Ldn (dB(A))	60.9		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548
Remark The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.
Note : This Analysis test report is reissued to supersede report No.2933686-1, Date Reported : Mar 12, 2024 due to revise sample information.

Technical Management Thanita Kulsuriwong, Scientist (4)
Approved by Supot Salamteh, Section Head

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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company
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479-101/ EMAIL S:\Reports_Air Noise.rpt (9:18AM)

Analysis / Test Report

TESTING
No.0042

Client : WHA Eastern Industrial Estate Co., Ltd.
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Monitoring
Project Location : WHA EIE

Lot ID: 2422830
Date Received : Mar 07, 2024
Date Reported : Mar 19, 2024
Report Number: 2933687-1 Rev. No.1

Sample Number 2422830-17
Parameter Noise (Leq 24 hrs)
Location จัดมาบขยุด(N5) (GPS 47P 0730831, 1407365)
Measurement Date Mar 01 - Mar 02, 2024
Measurement by Saknarin Jaraskay
Sound Level meter Serial No. 623393

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	55.8	74.7	46.8
11:00 AM - 12:00 PM	55.3	72.4	45.7
12:00 PM - 01:00 PM	62.4	78.1	45.9
01:00 PM - 02:00 PM	59.1	79.2	49.1
02:00 PM - 03:00 PM	56.2	74.9	49.4
03:00 PM - 04:00 PM	52.9	75.2	47.6
04:00 PM - 05:00 PM	48.4	68.1	44.7
05:00 PM - 06:00 PM	51.7	78.5	45.3
06:00 PM - 07:00 PM	49.2	72.2	46.0
07:00 PM - 08:00 PM	46.3	63.3	44.5
08:00 PM - 09:00 PM	51.9	78.7	43.1
09:00 PM - 10:00 PM	45.1	63.3	42.5
10:00 PM - 11:00 PM	46.1	63.7	43.1
11:00 PM - 12:00 AM	45.6	63.4	43.0
12:00 AM - 01:00 AM	46.9	65.7	42.4
01:00 AM - 02:00 AM	44.1	56.7	42.0
02:00 AM - 03:00 AM	43.5	57.0	41.5
03:00 AM - 04:00 AM	47.7	71.2	41.6
04:00 AM - 05:00 AM	50.5	72.2	41.0
05:00 AM - 06:00 AM	55.4	84.1	43.7
06:00 AM - 07:00 AM	49.6	65.6	46.0
07:00 AM - 08:00 AM	54.8	81.5	44.9
08:00 AM - 09:00 AM	54.6	72.4	47.2
09:00 AM - 10:00 AM	55.0	73.7	46.9
Leq Average 24 hrs. (dB(A))	54.1		
Lmax (dB(A))		84.1	
L90 (dB(A))			44.7
Ldn (dB(A))	57.4		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548
Remark The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.
Note : This Analysis test report is reissued to supersede report No.2933687-1, Date Reported : Mar 12, 2024 due to revise sample information.

Technical Management Thanita Kulsuriwong, Scientist (4)
Approved by Supot Salamteh, Section Head

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Analysis / Test Report

TESTING
No.0042

Client : WHA Eastern Industrial Estate Co., Ltd.
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Monitoring
Project Location : WHA EIE

Lot ID: 2422830
Date Received : Mar 07, 2024
Date Reported : Mar 19, 2024
Report Number: 2933688-1 Rev. No.1

Sample Number 2422830-18
Parameter Noise (Leq 24 hrs)
Location จัดมาบขยุด(N5) (GPS 47P 0730831, 1407365)
Measurement Date Mar 02 - Mar 03, 2024
Measurement by Saknarin Jaraskay
Sound Level meter Serial No. 623393

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	51.6	77.0	44.4
11:00 AM - 12:00 PM	50.1	68.3	44.5
12:00 PM - 01:00 PM	51.4	71.5	45.0
01:00 PM - 02:00 PM	53.8	73.2	46.5
02:00 PM - 03:00 PM	54.2	84.0	46.9
03:00 PM - 04:00 PM	49.0	63.8	45.3
04:00 PM - 05:00 PM	49.8	74.0	45.2
05:00 PM - 06:00 PM	48.3	74.2	44.4
06:00 PM - 07:00 PM	53.6	78.2	43.4
07:00 PM - 08:00 PM	45.7	68.1	42.8
08:00 PM - 09:00 PM	44.5	60.1	42.6
09:00 PM - 10:00 PM	45.4	55.5	43.1
10:00 PM - 11:00 PM	45.8	69.6	42.4
11:00 PM - 12:00 AM	44.4	58.7	42.3
12:00 AM - 01:00 AM	43.9	63.1	41.9
01:00 AM - 02:00 AM	42.8	55.9	41.2
02:00 AM - 03:00 AM	46.0	72.3	40.5
03:00 AM - 04:00 AM	41.0	48.5	39.7
04:00 AM - 05:00 AM	54.5	76.3	40.5
05:00 AM - 06:00 AM	52.6	79.2	44.6
06:00 AM - 07:00 AM	50.3	67.7	46.7
07:00 AM - 08:00 AM	51.4	64.4	48.2
08:00 AM - 09:00 AM	52.1	72.8	48.0
09:00 AM - 10:00 AM	58.3	84.8	46.0
Leq Average 24 hrs. (dB(A))	51.2		
Lmax (dB(A))		84.8	
L90 (dB(A))			44.4
Ldn (dB(A))	56.1		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548
Remark The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.
Note : This Analysis test report is reissued to supersede report No.2933688-1, Date Reported : Mar 12, 2024 due to revise sample information.

Technical Management Thanita Kulsuriwong, Scientist (4)
Approved by Supot Salamteh, Section Head

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Analysis / Test Report

TESTING
No.0042

Client : WHA Eastern Industrial Estate Co., Ltd.
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Monitoring
Project Location : WHA EIE

Lot ID: 2422830
Date Received : Mar 07, 2024
Date Reported : Mar 19, 2024
Report Number: 2933689-1 Rev. No.1

Sample Number 2422830-19
Parameter Noise (Leq 24 hrs)
Location จัดมาบขยุด(N5) (GPS 47P 0730831, 1407365)
Measurement Date Mar 03 - Mar 04, 2024
Measurement by Saknarin Jaraskay
Sound Level meter Serial No. 623393

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	53.0	74.7	46.3
11:00 AM - 12:00 PM	54.0	77.3	45.8
12:00 PM - 01:00 PM	48.0	75.2	45.5
01:00 PM - 02:00 PM	49.4	75.7	42.8
02:00 PM - 03:00 PM	47.2	67.1	43.3
03:00 PM - 04:00 PM	47.8	69.1	44.4
04:00 PM - 05:00 PM	51.2	72.7	44.6
05:00 PM - 06:00 PM	51.6	74.4	45.2
06:00 PM - 07:00 PM	49.0	69.0	46.5
07:00 PM - 08:00 PM	46.9	57.2	45.1
08:00 PM - 09:00 PM	59.1	82.8	44.7
09:00 PM - 10:00 PM	46.9	72.7	45.0
10:00 PM - 11:00 PM	49.1	76.3	46.5
11:00 PM - 12:00 AM	49.7	60.7	46.9
12:00 AM - 01:00 AM	48.8	65.4	46.4
01:00 AM - 02:00 AM	47.8	67.5	46.2
02:00 AM - 03:00 AM	47.8	69.6	46.4
03:00 AM - 04:00 AM	47.6	64.5	46.0
04:00 AM - 05:00 AM	47.2	64.1	45.5
05:00 AM - 06:00 AM	53.7	71.2	45.7
06:00 AM - 07:00 AM	52.7	72.4	48.3
07:00 AM - 08:00 AM	61.3	86.9	48.6
08:00 AM - 09:00 AM	50.9	73.7	46.8
09:00 AM - 10:00 AM	52.0	67.8	48.5
Leq Average 24 hrs. (dB(A))	52.7		
Lmax (dB(A))		86.9	
L90 (dB(A))			45.8
Ldn (dB(A))	57.2		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548
Remark The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.
Note : This Analysis test report is reissued to supersede report No.2933689-1, Date Reported : Mar 12, 2024 due to revise sample information.

Technical Management Thanita Kulsuriwong, Scientist (4)
Approved by Supot Salamteh, Section Head

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Analysis / Test Report

TESTING
No.0042

Client : WHA Eastern Industrial Estate Co., Ltd.
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name : Monitoring
Project Location : WHA EIE

Lot ID: 2422830
Date Received : Mar 07, 2024
Date Reported : Mar 19, 2024
Report Number: 2933690-1 Rev. No.1

Sample Number 2422830-20
Parameter Noise (Leq 24 hrs)
Location จัดมาบขยุด(N5) (GPS 47P 0730831, 1407365)
Measurement Date Mar 04 - Mar 05, 2024
Measurement by Saknarin Jaraskay
Sound Level meter Serial No. 623393

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	51.0	65.6	47.8
11:00 AM - 12:00 PM	55.3	70.5	48.2
12:00 PM - 01:00 PM	49.2	66.7	45.9
01:00 PM - 02:00 PM	50.6	68.4	46.6
02:00 PM - 03:00 PM	52.0	63.6	47.8
03:00 PM - 04:00 PM	53.7	74.7	48.3
04:00 PM - 05:00 PM	53.5	73.2	47.7
05:00 PM - 06:00 PM	54.5	78.5	47.9
06:00 PM - 07:00 PM	52.1	74.6	46.7
07:00 PM - 08:00 PM	49.3	72.0	46.0
08:00 PM - 09:00 PM	48.6	71.7	45.1
09:00 PM - 10:00 PM	48.1	72.5	44.8
10:00 PM - 11:00 PM	59.8	83.9	45.0
11:00 PM - 12:00 AM	48.1	68.9	45.2
12:00 AM - 01:00 AM	46.6	60.5	44.4
01:00 AM - 02:00 AM	46.5	58.3	43.7
02:00 AM - 03:00 AM	44.7	57.0	43.0
03:00 AM - 04:00 AM	51.7	74.3	43.4
04:00 AM - 05:00 AM	51.6	75.9	43.5
05:00 AM - 06:00 AM	57.5	76.3	45.4
06:00 AM - 07:00 AM	52.8	73.4	48.5
07:00 AM - 08:00 AM	55.4	79.8	47.2
08:00 AM - 09:00 AM	51.3	79.7	46.4
09:00 AM - 10:00 AM	59.8	85.7	45.9
Leq Average 24 hrs. (dB(A))	53.7		
Lmax (dB(A))		85.7	
L90 (dB(A))			45.9
Ldn (dB(A))	60.2		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548
Remark The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.
Note : This Analysis test report is reissued to supersede report No.2933690-1, Date Reported : Mar 12, 2024 due to revise sample information.

Technical Management Thanita Kulsuriwong, Scientist (4)
Approved by Supot Salamteh, Section Head

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ภาคผนวก ค-8

กากตะกอนจากระบบบำบัดน้ำเสียและระบบผลิตน้ำประปา

Analysis / Test Report

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name :
Project Location : WHA EIE

Lot ID: 2460435
Date Received : May 28, 2024
Date Reported : Jun 07, 2024
Report Number : 3005403-1

Sample Number	2460435-1
Sampled Date	May 28, 2024 10:40 AM
Sample Description	Sludge
Location	WHA EIE : ตะกอนจากระบบบำบัดน้ำเสียส่วนกลาง (WWTP)
Date Analysis Commenced	May 29, 2024
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
Total Concentration Test (TTLC) : Metals							
Cadmium	mg/kg	-	0.50	<0.50	<100	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Chromium	mg/kg	-	1.00	65.0	<2500	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Hexavalent Chromium	mg/kg	-	1.00	<1.00	<500	United States Environmental Protection Agency, EPA Method 3060 A and 7196 A	Bangkok
Lead	mg/kg	-	1.00	4.46	<1000	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Mercury	mg/kg	-	0.10	0.61	<20	United States Environmental Protection Agency, EPA Method 7473	Bangkok
Nickel	mg/kg	-	1.00	27.5	<2000	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Selenium	mg/kg	-	0.50	0.86	<100	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Zinc	mg/kg	-	1.00	417	<5000	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Waste Extraction Test (STLC) : Metals							
Chromium	mg/L	-	0.03	3.07	<5	MOI, B.E.2566	Bangkok
Mercury	mg/L	-	0.001	<0.001	<0.2	MOI, B.E.2566	Bangkok
Nickel	mg/L	-	0.01	0.71	<20	MOI, B.E.2566	Bangkok
Zinc	mg/L	-	0.01	29.7	<250	MOI, B.E.2566	Bangkok

Guideline : Notification of the Ministry of Industry regarding Waste or Used Material Disposal, B.E. 2566 (2023).
Sampling By : Pattarapol Sawangjaitam ทะเบียนเลขที่ ว-204-จ-0002
Remark :

Technical Management Sawitree N.
Sawitree Noisangiam
Manager
ทะเบียนเลขที่ ว-204-จ-0007

Approved by Kanokkorn Anek
Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-0004

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 : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name :
Project Location : WHA EIE

Lot ID: 2460435
Date Received : May 28, 2024
Date Reported : Jun 07, 2024
Report Number : 3005403-1

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

Technical Management Sawitree N.
Sawitree Noisangiam
Manager
ทะเบียนเลขที่ ว-204-จ-0007

Approved by Kanokkorn Anek
Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-0004

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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5317-131/ EMAIL S:\Reports_All_GL.rpt (1:44PM)

Analysis / Test Report

Client : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O :
Project Name :
Project Location: WHA EIE

Lot ID: 2460435
Date Received : May 28, 2024
Date Reported : Jun 07, 2024
Report Number : 3005403-2

Sample Number	2460435-1
Sampled Date	May 28, 2024 10:40 AM
Sample Description	Sludge
Location	WHA EIE : ตะกอนจากระบบบำบัดน้ำเสียส่วนกลาง (WWTP)
Date Analysis Commenced	May 29, 2024
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
Physical Parameters							
Moisture	%	-	0.1	87.6	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
Total Concentration Test (TTLC) : Metals							
Iron	mg/kg	-	1.00	8628	No Standard	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok

Guideline : Notification of the Ministry of Industry regarding Waste or Used Material Disposal, B.E. 2566 (2023).

Sampling By : Pattarapol Sawangjaitam

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 : WHA Utilities and Power Public Company Limited
18, Pakornsongkrohraj Road, Tambol Huaypong, Amphur Muang, Rayong Thailand 21150
P/O : Check_
Project Name :
Project Location: WHA EIE

Lot ID: 2447576
Date Received : May 27, 2024
Date Reported : Jun 03, 2024
Report Number : 2996374-1

Sample Number	2447576-2
Sampled Date	May 27, 2024 10:10 AM
Sample Description	Sludge
Location	WHA EIE : ตะกอนจากระบบผลิตน้ำประปา (WTP)
Date Analysis Commenced	May 28, 2024
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
Total Concentration Test (TTLC) : Metals							
Cadmium	mg/kg	-	0.50	<0.50	<100	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Chromium	mg/kg	-	1.00	4.92	<2500	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Hexavalent Chromium	mg/kg	-	1.00	<1.00	<500	United States Environmental Protection Agency, EPA Method 3060 A and 7196 A	Bangkok
Lead	mg/kg	-	1.00	3.05	<1000	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Mercury	mg/kg	-	0.10	<0.10	<20	United States Environmental Protection Agency, EPA Method 7473	Bangkok
Nickel	mg/kg	-	1.00	1.92	<2000	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Selenium	mg/kg	-	0.50	0.72	<100	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Zinc	mg/kg	-	1.00	13.3	<5000	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok

Guideline : Notification of the Ministry of Industry regarding Waste or Used Material Disposal, B.E. 2566 (2023).

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

Technical Management
Sawitree Noisangiam
Manager
ทะเบียนเลขที่ ว-204-จ-0007

Approved by
Kanokkorn Anek
Senior Manager
ทะเบียนเลขที่ ว-204-ค-0004

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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Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Physical Parameters							
Moisture	%	-	0.1	86.7	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
Total Concentration Test (TTLC) : Metals							
Iron	mg/kg	-	1.00	1204	No Standard	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok

Guideline : Notification of the Ministry of Industry regarding Waste or Used Material Disposal, B.E. 2566 (2023).

Sampling By : Pattarapol Sawangjaitam

Remark :
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Approved by Sawitree N.
Sawitree Noisangiam
Manager