



บริษัท ซีคอต จำกัด  
SECOT CO., LTD.

239 ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพฯ 10800

239 RIMKLONGPRAPA ROAD, BANGSUE, BANGKOK 10800, THAILAND

TEL : +66(0) 2959-3600 FAX : +66(0) 2959-3535 E-mail : envserv@secot.co.th

STACK EMISSION ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd. (Branch 16)	REFERENCE NO.	: 223112-Stack_NOx/B-910
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING DATE	: 01/09/2023
RECEIVED DATE	: 05/09/2023	ANALYTICAL DATE	: 05-15/09/2023
REPORT DATE	: 23/09/2023	SAMPLE CONDITION	: Good
STACK LOCATION	: B-910 stack	SITE OPERATOR	: Mr. Kittipong Thakoengsuk
SOURCE DESCRIPTION	: Combustion	FUEL TYPE	: Natural Gas

STACK DESCRIPTION

Height	: 23.0	m	Gas Velocity	: 5.9	m/s
Diameter	: 0.8	m	Flow rate*	: 94	Ncu.m./min
Temperature	: 176.3	°C	Excess Oxygen	: 4.1	%

PARAMETER	UNIT	RESULT*		STANDARD	REFERENCE
		4.1%O <sub>2</sub>	7%O <sub>2</sub>	7%O <sub>2</sub>	METHOD
Oxides of Nitrogen (NO <sub>x</sub> )	mg/Ncu.m.	35.36	29.31	376 <sup>1/</sup> (85.0 <sup>2/</sup> )	US EPA Method 7E
	ppm	18.79	15.58	200 <sup>1/</sup> (45.2 <sup>2/</sup> )	
	g/s	0.055		0.068 <sup>2/</sup>	

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

(Miss Preeda Somjai)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. \* At standard pressure of 760 mm.Hg and temperature of 25 °C, dry basis.

4. <sup>1/</sup> Notification of Ministry of Industry B.E.2549 (2006) and Notification of Natural Resources and Environment B.E.2549 (2006)

5. <sup>2/</sup> The value was assigned in EIA report.

Request No. LA66-R0919

Report No. R6609-0284 - R6609-0290

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
 ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 SAMPLE SOURCE : EOEG Plant  
 SAMPLE POINT : บ้านหนองเพิบ SAMPLE NO. : 27134-27140  
 PARAMETER\* : Nitrogen Dioxide SAMPLING DATE : 28/08/2023-04/09/2023  
 DETERMINATION METHOD : Chemiluminescence RECEIVED DATE : 04/09/2023  
 INSTRUMENT : API Model T200 S/N 2005 REPORTED DATE : 11/09/2023

TIME / DATE	28-29/08/2023	29-30/08/2023	30-31/08/2023	UNIT
11:00 - 12:00 <sup>/2</sup>	0.003	0.003	0.004	ppm
12:00 - 13:00	0.003	0.003	0.003	ppm
13:00 - 14:00	0.002	0.003	0.003	ppm
14:00 - 15:00	0.002	0.004	0.004	ppm
15:00 - 16:00	0.003	0.003	0.003	ppm
16:00 - 17:00	0.003	0.003	0.004	ppm
17:00 - 18:00	0.003	0.004	0.004	ppm
18:00 - 19:00	0.004	0.004	0.004	ppm
19:00 - 20:00	0.004	0.005	0.004	ppm
20:00 - 21:00	0.005	0.004	0.004	ppm
21:00 - 22:00	0.004	0.004	0.003	ppm
22:00 - 23:00	0.004	0.003	0.003	ppm
23:00 - 00:00	0.004	0.003	0.003	ppm
00:00 - 01:00	0.004	0.003	0.003	ppm
01:00 - 02:00	0.004	0.003	0.003	ppm
02:00 - 03:00	0.004	0.003	0.003	ppm
03:00 - 04:00	0.003	0.003	0.003	ppm
04:00 - 05:00	0.003	0.003	0.003	ppm
05:00 - 06:00	0.003	0.003	0.003	ppm
06:00 - 07:00	0.003	0.003	0.003	ppm
07:00 - 08:00	0.004	0.004	0.005	ppm
08:00 - 09:00	0.004	0.006	0.006	ppm
09:00 - 10:00	0.004	0.004	0.005	ppm
10:00 - 11:00	0.003	0.004	0.004	ppm
Maximum 1 hr.	0.005	0.006	0.006	ppm
Average 24 hr.	0.004	0.004	0.004	ppm
Standard (1 hr.) <sup>/1</sup>	0.17	0.17	0.17	ppm

REMARK : <sup>/1</sup> Notification of The National Environmental Board Volume 33 B.E. 2552 (2009)<sup>/2</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Phonakbun)

Approved By

(MS. THANATPORN KLINSOPON)

11/09/2023

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Request No. LA66-R0919

Report No. R6609-0284 - R6609-0290

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
SAMPLE SOURCE : EOEG Plant  
SAMPLE POINT : บ้านหนองแฟบ  
PARAMETER\* : Nitrogen Dioxide  
DETERMINATION METHOD : Chemiluminescence  
INSTRUMENT : API Model T200 S/N 2005

SAMPLE NO. : 27134-27140  
SAMPLING DATE : 28/08/2023-04/09/2023  
RECEIVED DATE : 04/09/2023  
REPORTED DATE : 11/09/2023

TIME / DATE	31/08/2023-01/09/2023	01-02/09/2023	02-03/09/2023	UNIT
11:00 - 12:00 <sup>/2</sup>	0.004	0.004	0.004	ppm
12:00 - 13:00	0.004	0.004	0.004	ppm
13:00 - 14:00	0.004	0.004	0.004	ppm
14:00 - 15:00	0.004	0.004	0.003	ppm
15:00 - 16:00	0.004	0.004	0.004	ppm
16:00 - 17:00	0.005	0.004	0.003	ppm
17:00 - 18:00	0.005	0.004	0.004	ppm
18:00 - 19:00	0.005	0.005	0.004	ppm
19:00 - 20:00	0.005	0.005	0.004	ppm
20:00 - 21:00	0.004	0.004	0.004	ppm
21:00 - 22:00	0.004	0.003	0.004	ppm
22:00 - 23:00	0.004	0.003	0.004	ppm
23:00 - 00:00	0.004	0.004	0.004	ppm
00:00 - 01:00	0.004	0.003	0.004	ppm
01:00 - 02:00	0.005	0.003	0.004	ppm
02:00 - 03:00	0.005	0.003	0.004	ppm
03:00 - 04:00	0.004	0.003	0.004	ppm
04:00 - 05:00	0.004	0.003	0.003	ppm
05:00 - 06:00	0.005	0.003	0.003	ppm
06:00 - 07:00	0.005	0.003	0.003	ppm
07:00 - 08:00	0.004	0.004	0.004	ppm
08:00 - 09:00	0.005	0.005	0.004	ppm
09:00 - 10:00	0.004	0.005	0.004	ppm
10:00 - 11:00	0.004	0.004	0.004	ppm
Maximum 1 hr.	0.005	0.005	0.004	ppm
Average 24 hr.	0.004	0.004	0.004	ppm
Standard (1 hr.) <sup>/1</sup>	0.17	0.17	0.17	ppm

REMARK : <sup>/1</sup> Notification of The National Environmental Board Volume 33 B.E. 2552 (2009)<sup>/2</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Phorankhum)

Approved By

(MS. THANATPORN KLINSOPON)

11/09/2023

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Report No. R6609-0284 - R6609-0290

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
 ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
 Amphur Muang Rayong, Rayong 21150  
 SAMPLE SOURCE : EOEG Plant  
 SAMPLE POINT : บ้านหนองแฟบ  
 PARAMETER\* : Nitrogen Dioxide  
 DETERMINATION METHOD : Chemiluminescence  
 INSTRUMENT : API Model T200 S/N 2005

SAMPLE NO. : 27134-27140  
 SAMPLING DATE : 28/08/2023-04/09/2023  
 RECEIVED DATE : 04/09/2023  
 REPORTED DATE : 11/09/2023

TIME / DATE	03-04/09/2023	UNIT
11:00 - 12:00 <sup>12</sup>	0.004	ppm
12:00 - 13:00	0.004	ppm
13:00 - 14:00	0.004	ppm
14:00 - 15:00	0.004	ppm
15:00 - 16:00	0.004	ppm
16:00 - 17:00	0.004	ppm
17:00 - 18:00	0.004	ppm
18:00 - 19:00	0.004	ppm
19:00 - 20:00	0.004	ppm
20:00 - 21:00	0.004	ppm
21:00 - 22:00	0.004	ppm
22:00 - 23:00	0.003	ppm
23:00 - 00:00	0.003	ppm
00:00 - 01:00	0.003	ppm
01:00 - 02:00	0.004	ppm
02:00 - 03:00	0.004	ppm
03:00 - 04:00	0.004	ppm
04:00 - 05:00	0.003	ppm
05:00 - 06:00	0.004	ppm
06:00 - 07:00	0.004	ppm
07:00 - 08:00	0.005	ppm
08:00 - 09:00	0.006	ppm
09:00 - 10:00	0.005	ppm
10:00 - 11:00	0.004	ppm
Maximum 1 hr.	0.006	ppm
Average 24 hr.	0.004	ppm
Standard (1 hr.) <sup>11</sup>	0.17	ppm

REMARK : <sup>11</sup> Notification of The National Environmental Board Volume 33 B.E. 2552 (2009)<sup>12</sup> Start Time

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
 (Measurement By Mr. Tummarut Photankhurn)



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Request No. LA66-R0919

Report No. R6609-0291 - R6609-0297

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
SAMPLE SOURCE : EOEG Plant  
SAMPLE POINT : วัดมาบชูด  
PARAMETER\* : Nitrogen Dioxide  
DETERMINATION METHOD : Chemiluminescence  
INSTRUMENT : API Model T200 S/N 6758

SAMPLE NO. : 27141-27147  
SAMPLING DATE : 28/08/2023-04/09/2023  
RECEIVED DATE : 04/09/2023  
REPORTED DATE : 11/09/2023

TIME / DATE	28-29/08/2023	29-30/08/2023	30-31/08/2023	UNIT
12:00 - 13:00 <sup>2</sup>	0.012	0.014	0.012	ppm
13:00 - 14:00	0.010	0.013	0.013	ppm
14:00 - 15:00	0.005	0.010	0.013	ppm
15:00 - 16:00	0.005	0.008	0.013	ppm
16:00 - 17:00	0.005	0.009	0.013	ppm
17:00 - 18:00	0.005	0.009	0.010	ppm
18:00 - 19:00	0.005	0.005	0.007	ppm
19:00 - 20:00	0.004	0.004	0.009	ppm
20:00 - 21:00	0.003	0.005	0.007	ppm
21:00 - 22:00	0.005	0.007	0.006	ppm
22:00 - 23:00	0.004	0.008	0.008	ppm
23:00 - 00:00	0.005	0.010	0.008	ppm
00:00 - 01:00	0.005	0.009	0.008	ppm
01:00 - 02:00	0.006	0.001	0.006	ppm
02:00 - 03:00	0.006	0.002	0.009	ppm
03:00 - 04:00	0.007	0.005	0.010	ppm
04:00 - 05:00	0.007	0.010	0.008	ppm
05:00 - 06:00	0.009	0.012	0.010	ppm
06:00 - 07:00	0.009	0.008	0.009	ppm
07:00 - 08:00	0.008	0.008	0.007	ppm
08:00 - 09:00	0.010	0.011	0.008	ppm
09:00 - 10:00	0.014	0.010	0.008	ppm
10:00 - 11:00	0.018	0.008	0.008	ppm
11:00 - 12:00	0.015	0.017	0.011	ppm
Maximum 1 hr.	0.018	0.017	0.013	ppm
Average 24 hr.	0.008	0.008	0.009	ppm
Standard (1 hr.) <sup>1</sup>	0.17	0.17	0.17	ppm

REMARK : <sup>1</sup> Notification of The National Environmental Board Volume 33 B.E. 2552 (2009)<sup>2</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Photankham)

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Request No. LA66-R0919

Report No. R6609-0291 - R6609-0297

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
 ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 SAMPLE SOURCE : EOEG Plant  
 SAMPLE POINT : วัดมาบชูด  
 PARAMETER\* : Nitrogen Dioxide  
 DETERMINATION METHOD : Chemiluminescence  
 INSTRUMENT : API Model T200 S/N 6758

SAMPLE NO. : 27141-27147  
 SAMPLING DATE : 28/08/2023-04/09/2023  
 RECEIVED DATE : 04/09/2023  
 REPORTED DATE : 11/09/2023

TIME / DATE	31/08/2023-01/09/2023	01-02/09/2023	02-03/09/2023	UNIT
12:00 - 13:00 <sup>/2</sup>	0.010	0.010	0.013	ppm
13:00 - 14:00	0.017	0.014	0.014	ppm
14:00 - 15:00	0.010	0.018	0.015	ppm
15:00 - 16:00	0.006	0.019	0.016	ppm
16:00 - 17:00	0.013	0.014	0.014	ppm
17:00 - 18:00	0.014	0.014	0.014	ppm
18:00 - 19:00	0.013	0.012	0.010	ppm
19:00 - 20:00	0.014	0.021	0.011	ppm
20:00 - 21:00	0.010	0.013	0.011	ppm
21:00 - 22:00	0.012	0.010	0.010	ppm
22:00 - 23:00	0.011	0.010	0.009	ppm
23:00 - 00:00	0.007	0.007	0.008	ppm
00:00 - 01:00	0.008	0.009	0.008	ppm
01:00 - 02:00	0.007	0.013	0.009	ppm
02:00 - 03:00	0.007	0.012	0.011	ppm
03:00 - 04:00	0.009	0.012	0.013	ppm
04:00 - 05:00	0.008	0.010	0.009	ppm
05:00 - 06:00	0.008	0.010	0.009	ppm
06:00 - 07:00	0.008	0.006	0.009	ppm
07:00 - 08:00	0.009	0.007	0.011	ppm
08:00 - 09:00	0.009	0.007	0.017	ppm
09:00 - 10:00	0.007	0.009	0.011	ppm
10:00 - 11:00	0.008	0.012	0.014	ppm
11:00 - 12:00	0.012	0.021	0.016	ppm
Maximum 1 hr.	0.017	0.021	0.017	ppm
Average 24 hr.	0.010	0.012	0.012	ppm
Standard (1 hr.) <sup>/1</sup>	0.17	0.17	0.17	ppm

REMARK : <sup>/1</sup> Notification of The National Environmental Board Volume 33 B.E. 2552 (2009)<sup>/2</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Photankhum)

Approved By

(MS. THANATPORN KLINSOPON)

11/09/2023

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Report No. R6609-0291 - R6609-0297

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
 ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 SAMPLE SOURCE : EOEG Plant  
 SAMPLE POINT : วัดมาบชลูด  
 PARAMETER\* : Nitrogen Dioxide  
 DETERMINATION METHOD : Chemiluminescence  
 INSTRUMENT : API Model T200 S/N 6758

SAMPLE NO. : 27141-27147  
 SAMPLING DATE : 28/08/2023-04/09/2023  
 RECEIVED DATE : 04/09/2023  
 REPORTED DATE : 11/09/2023

TIME / DATE	03-04/09/2023	UNIT
12:00 - 13:00 <sup>2</sup>	0.013	ppm
13:00 - 14:00	0.012	ppm
14:00 - 15:00	0.013	ppm
15:00 - 16:00	0.012	ppm
16:00 - 17:00	0.011	ppm
17:00 - 18:00	0.013	ppm
18:00 - 19:00	0.010	ppm
19:00 - 20:00	0.010	ppm
20:00 - 21:00	0.009	ppm
21:00 - 22:00	0.010	ppm
22:00 - 23:00	0.010	ppm
23:00 - 00:00	0.010	ppm
00:00 - 01:00	0.007	ppm
01:00 - 02:00	0.009	ppm
02:00 - 03:00	0.009	ppm
03:00 - 04:00	0.012	ppm
04:00 - 05:00	0.009	ppm
05:00 - 06:00	0.008	ppm
06:00 - 07:00	0.008	ppm
07:00 - 08:00	0.010	ppm
08:00 - 09:00	0.011	ppm
09:00 - 10:00	0.012	ppm
10:00 - 11:00	0.013	ppm
11:00 - 12:00	0.010	ppm
Maximum 1 hr.	0.013	ppm
Average 24 hr.	0.011	ppm
Standard (1 hr.) <sup>1</sup>	0.17	ppm

REMARK : <sup>1</sup> Notification of The National Environmental Board Volume 33 B.E. 2552 (2009)<sup>2</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Photankhumb)

Approved By

(MS. THANATPORN KLINSOPON)

11/09/2023

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Request No, LA66-R0919

Report No, R6609-0298 - R6609-0304

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
 ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 SAMPLE SOURCE : EOEG Plant  
 SAMPLE POINT : สำนักงานนิคมอุตสาหกรรมระดับชีวเอชเอ ตะวันออก (มาบตาพุด)  
 PARAMETER\* : Nitrogen Dioxide SAMPLE NO. : 27148-27154  
 DETERMINATION METHOD : Chemiluminescence SAMPLING DATE : 28/08/2023-04/09/2023  
 INSTRUMENT : API Model T200 S/N 7355 RECEIVED DATE : 04/09/2023  
 REPORTED DATE : 11/09/2023

TIME / DATE	28-29/08/2023	29-30/08/2023	30-31/08/2023	UNIT
12:00 - 13:00 <sup>1/2</sup>	0.007	0.010	0.014	ppm
13:00 - 14:00	0.005	0.006	0.012	ppm
14:00 - 15:00	0.010	0.007	0.009	ppm
15:00 - 16:00	0.012	0.008	0.007	ppm
16:00 - 17:00	0.010	0.008	0.009	ppm
17:00 - 18:00	0.006	0.008	0.009	ppm
18:00 - 19:00	0.010	0.006	0.004	ppm
19:00 - 20:00	0.004	0.004	0.004	ppm
20:00 - 21:00	0.003	0.003	0.004	ppm
21:00 - 22:00	0.002	0.003	0.003	ppm
22:00 - 23:00	0.006	0.005	0.003	ppm
23:00 - 00:00	0.002	0.003	0.003	ppm
00:00 - 01:00	0.001	0.004	0.005	ppm
01:00 - 02:00	0.002	0.004	0.003	ppm
02:00 - 03:00	0.003	0.005	0.003	ppm
03:00 - 04:00	0.003	0.006	0.003	ppm
04:00 - 05:00	0.005	0.004	0.001	ppm
05:00 - 06:00	0.008	0.004	0.002	ppm
06:00 - 07:00	0.010	0.002	0.004	ppm
07:00 - 08:00	0.008	0.004	0.002	ppm
08:00 - 09:00	0.008	0.005	0.002	ppm
09:00 - 10:00	0.010	0.005	0.004	ppm
10:00 - 11:00	0.011	0.006	0.005	ppm
11:00 - 12:00	0.011	0.009	0.005	ppm
Maximum 1 hr.	0.012	0.010	0.014	ppm
Average 24 hr.	0.006	0.005	0.005	ppm
Standard (1 hr.) <sup>1/1</sup>	0.17	0.17	0.17	ppm

REMARK : <sup>1/1</sup> Notification of The National Environmental Board Volume 33 B.E. 2552 (2009)<sup>1/2</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Photankhum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

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Request No. LA66-R0919

Report No. R6609-0298 - R6609-0304

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
 ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 SAMPLE SOURCE : EOEG Plant  
 SAMPLE POINT : สำนักงานนิคมอุตสาหกรรมดับบลิวเอชเอ ตะวันออก (มาบตาพุด)  
 PARAMETER\* : Nitrogen Dioxide SAMPLE NO. : 27148-27154  
 DETERMINATION METHOD : Chemiluminescence SAMPLING DATE : 28/08/2023-04/09/2023  
 INSTRUMENT : API Model T200 S/N 7355 RECEIVED DATE : 04/09/2023  
 REPORTED DATE : 11/09/2023

TIME / DATE	31/08/2023-01/09/2023	01-02/09/2023	02-03/09/2023	UNIT
12:00 - 13:00 <sup>12</sup>	0.006	0.005	0.014	ppm
13:00 - 14:00	0.008	0.004	0.017	ppm
14:00 - 15:00	0.008	0.006	0.014	ppm
15:00 - 16:00	0.009	0.006	0.010	ppm
16:00 - 17:00	0.006	0.006	0.010	ppm
17:00 - 18:00	0.006	0.007	0.010	ppm
18:00 - 19:00	0.006	0.007	0.009	ppm
19:00 - 20:00	0.004	0.005	0.003	ppm
20:00 - 21:00	0.005	0.005	0.005	ppm
21:00 - 22:00	0.007	0.004	0.006	ppm
22:00 - 23:00	0.005	0.004	0.005	ppm
23:00 - 00:00	0.005	0.004	0.006	ppm
00:00 - 01:00	0.005	0.006	0.004	ppm
01:00 - 02:00	0.004	0.005	0.005	ppm
02:00 - 03:00	0.004	0.006	0.005	ppm
03:00 - 04:00	0.005	0.005	0.006	ppm
04:00 - 05:00	0.004	0.004	0.004	ppm
05:00 - 06:00	0.004	0.004	0.005	ppm
06:00 - 07:00	0.003	0.005	0.004	ppm
07:00 - 08:00	0.004	0.003	0.005	ppm
08:00 - 09:00	0.005	0.004	0.006	ppm
09:00 - 10:00	0.004	0.005	0.005	ppm
10:00 - 11:00	0.003	0.007	0.008	ppm
11:00 - 12:00	0.004	0.009	0.007	ppm
Maximum 1 hr.	0.009	0.009	0.017	ppm
Average 24 hr.	0.005	0.005	0.007	ppm
Standard (1 hr.) <sup>11</sup>	0.17	0.17	0.17	ppm

REMARK : <sup>11</sup> Notification of The National Environmental Board Volume 33 B.E. 2552 (2009)<sup>12</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Phorankhum)

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Approved By   
(MS. THANATPORN KLINSOPON)

11/09/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
 THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
 WITHOUT THE WRITTEN APPROVAL LABORATORY



Request No. LA66-R0919

Report No. R6609-0298 - R6609-0304

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
SAMPLE SOURCE : EOEG Plant  
SAMPLE POINT : สำนักงานนิคมอุตสาหกรรมดับบลิวเอชเอ ตะวันออก (มาบตาพุด)  
PARAMETER\* : Nitrogen Dioxide SAMPLE NO. : 27148-27154  
DETERMINATION METHOD : Chemiluminescence SAMPLING DATE : 28/08/2023-04/09/2023  
INSTRUMENT : API Model T200 S/N 7355 RECEIVED DATE : 04/09/2023  
REPORTED DATE : 11/09/2023

TIME / DATE	03-04/09/2023	UNIT*
12:00 - 13:00 <sup>/2</sup>	0.006	ppm
13:00 - 14:00	0.006	ppm
14:00 - 15:00	0.007	ppm
15:00 - 16:00	0.007	ppm
16:00 - 17:00	0.007	ppm
17:00 - 18:00	0.007	ppm
18:00 - 19:00	0.005	ppm
19:00 - 20:00	0.005	ppm
20:00 - 21:00	0.006	ppm
21:00 - 22:00	0.007	ppm
22:00 - 23:00	0.007	ppm
23:00 - 00:00	0.005	ppm
00:00 - 01:00	0.004	ppm
01:00 - 02:00	0.004	ppm
02:00 - 03:00	0.005	ppm
03:00 - 04:00	0.006	ppm
04:00 - 05:00	0.005	ppm
05:00 - 06:00	0.007	ppm
06:00 - 07:00	0.007	ppm
07:00 - 08:00	0.006	ppm
08:00 - 09:00	0.005	ppm
09:00 - 10:00	0.006	ppm
10:00 - 11:00	0.007	ppm
11:00 - 12:00	0.005	ppm
Maximum 1 hr.	0.007	ppm
Average 24 hr.	0.006	ppm
Standard (1 hr.) <sup>/1</sup>	0.17	ppm

REMARK : <sup>/1</sup> Notification of The National Environmental Board Volume 33 B.E. 2552 (2009)<sup>/2</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Pholankhum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MS. THANATPORN KLINSOPON)

11/09/2023

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WITHOUT THE WRITTEN APPROVAL LABORATORY

## Wind Speed &amp; Wind Direction

Request No. LA66-R0919

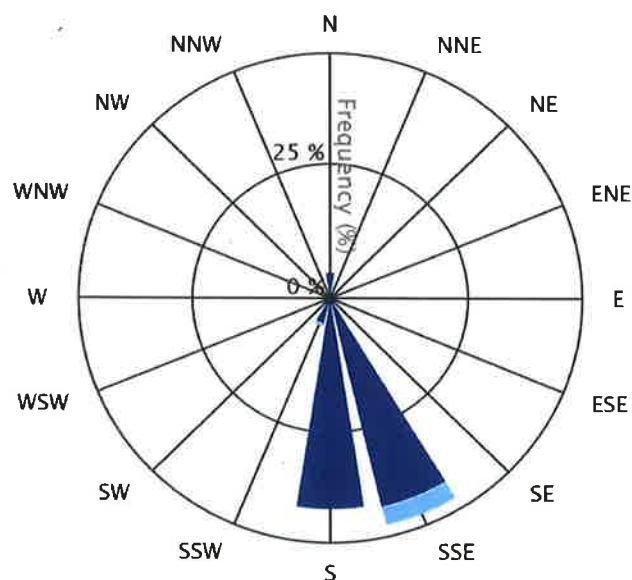
PTT Global Chemical Public Company Limited Branch 16 (EOEG Plant)

Sample No. 27155

Sampling Source : สำนักงานนิคมอุตสาหกรรมดับบลิวเอชเอ ตะวันออก (มาบตาพุด)

Sampling Date : August 28 - September 4, 2023

Calm 4.2 %


 0.4-1.9
  2.0-3.9
  4.0-5.9
  6.0-7.9
  8.0-9.9
  > 9.9 (m/s)

WD/WS	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.4-1.9 m/s	2.0-3.9 m/s	4.0-5.9 m/s	6.0-7.9 m/s	8.0-9.9 m/s	> 9.9 m/s	
N	4.8	0.0	0.0	0.0	0.0	0.0	4.8
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	1.2	0.0	0.0	0.0	0.0	0.0	1.2
SE	1.2	0.0	0.0	0.0	0.0	0.0	1.2
SSE	39.9	3.6	0.0	0.0	0.0	0.0	43.5
S	39.3	0.0	0.0	0.0	0.0	0.0	39.3
SSW	4.8	0.6	0.0	0.0	0.0	0.0	5.4
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.6	0.0	0.0	0.0	0.0	0.0	0.6
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Calm	4.2						

## Wind Speed &amp; Wind Direction

Request No. LA66-R0919

PTT Global Chemical Public Company Limited Branch 16 (EOEG Plant)

Sample No. 27155

Sampling Source : สำนักงานนิคมอุตสาหกรรมดับบลิวเอชเอ ตะวันออก (มาตาพุด)

Sampling Date : August 28 - September 4, 2023

Time	August 28-29, 2023		August 29-30, 2023		August 30-31, 2023		August 31-September 1, 2023		September 1-2, 2023		September 2-3, 2023		September 3-4, 2023	
	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction
12:00-13:00	0.9	SSW	1.8	S	1.3	S	1.3	S	1.3	SSE	0.9	SSE	1.3	SSE
13:00-14:00	2.7	SSW	1.3	S	1.8	SSE	2.2	SSE	1.3	SSE	2.2	SSE	1.8	SSE
14:00-15:00	1.8	SSW	1.3	S	1.8	SSE	1.8	SSE	1.8	SSE	2.7	SSE	1.8	SSE
15:00-16:00	1.8	SSW	1.3	S	1.8	SSE	0.4	S	2.2	SSE	2.7	SSE	1.8	SSE
16:00-17:00	1.8	S	0.9	S	2.2	SSE	0.9	S	1.8	SSE	1.8	SSE	0.9	SSE
17:00-18:00	1.8	S	0.9	S	1.8	SSE	0.9	S	1.8	SSE	1.8	SSE	1.8	SSE
18:00-19:00	1.3	S	0.4	S	0.9	S	0.9	S	0.9	S	1.3	SSE	0.9	SSE
19:00-20:00	0.4	SSW	0.4	ESE	0.9	S	0.9	S	0.9	SSE	0.4	S	0.9	SSE
20:00-21:00	0.4	SSW	0.4	ESE	0.4	S	0.4	S	1.3	SSE	1.3	SSE	0.9	SSE
21:00-22:00	0.4	SSW	0.4	S	0.4	S	0.9	SSE	1.3	SSE	1.3	SSE	1.3	SSE
22:00-23:00	0.4	SE	0.4	S	0.4	S	0.9	S	1.3	SSE	0.9	SSE	1.8	SSE
23:00-00:00	0.4	SSW	0.9	S	0.9	S	0.9	S	1.3	SSE	0.4	SSE	1.3	SSE
00:00-01:00	0.0	-	0.4	S	1.3	SSE	0.4	N	1.3	SSE	0.4	S	0.9	SSE
01:00-02:00	0.0	-	0.4	S	0.9	S	0.4	N	1.3	SSE	0.4	SSE	0.9	SSE
02:00-03:00	0.4	SSW	0.4	S	0.9	S	0.4	N	1.3	SSE	0.4	S	0.9	SSE
03:00-04:00	0.4	S	0.9	S	1.3	SSE	0.9	N	1.3	SSE	0.9	SSE	0.9	SSE
04:00-05:00	0.9	S	0.9	S	0.9	S	0.4	N	1.3	SSE	0.4	SSE	0.4	SSE
05:00-06:00	0.9	S	1.3	S	0.9	S	0.0	-	1.3	SSE	0.4	S	0.9	SSE
06:00-07:00	0.9	S	0.9	S	0.9	S	0.0	-	0.4	SSE	0.0	-	0.9	SSE
07:00-08:00	0.9	S	0.9	S	0.4	S	0.0	-	0.0	-	0.4	S	0.9	SSE
08:00-09:00	1.3	S	0.9	S	0.4	S	0.4	N	0.4	S	0.9	SSE	0.9	SSE
09:00-10:00	1.8	S	1.3	S	0.9	S	0.4	S	0.4	SSE	1.3	SSE	1.3	SSE
10:00-11:00	1.8	S	1.3	SSE	0.4	W	0.4	S	0.9	SSE	1.3	SSE	1.3	SSE
11:00-12:00	1.8	S	1.8	S	0.4	N	0.4	SSE	0.9	N	1.3	SSE	0.9	SE

**TEST REPORT**

Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\* Sample No. : W 66070545  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 05/07/2023\*\*  
Sampling By : ETC\*\* Sampling Time : 9:30 AM\*\*  
Sampling Method : Grab\*\* Received Date : 06/07/2023  
Tested Date : 06/07/2023 – 15/07/2023 Reported Date : 15/07/2023

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	73
pH (on site) *		Electrometric Method	7.4
Temperature *	°C	Laboratory and Field Method	35
Total Suspended Solids #	mg/L	Dried at 103-105 °C (SM:2540 D)	5

Physical Appearance : 1. Sample : yellowish, lightly SS

2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017

2. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.

3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)\*

4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By



( Miss Apiradee Chuen-arom )

(ว-003-ค-4377)

15/07/2023



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Approved By



( Miss Nunnaphat Bakhuntod )

(ว-003-ค-4367)

15/07/2023

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WITHOUT THE WRITTEN APPROVAL LABORATORY



Request No : W6607145

Report No : 6607-1363

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66070545  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit Sampling Date : 05/07/2023  
Sampling By : ETC Sampling Time : 9:30 AM  
Sampling Method : Grab Received Date : 06/07/2023  
Tested Date : 06/07/2023 – 15/07/2023 Reported Date : 15/07/2023

Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	173
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.07
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	0.8

Physical Appearance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. Parameter Outside The Scope of The Registration of Department of Industrial Works  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
5. Sampling By Mr. Parkpoom Buasawad (3-003-ก-7280)  
6. Sampling at UTM 47 P 730914 E 1404772 N



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Examined By.....

( Miss Apiradee Chuen-arom )

15/07/2023

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WITHOUT THE WRITTEN APPROVAL LABORATORY



Request No : W6607344

Report No : 6607-1786

**TEST REPORT**

Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\* Sample No. : W 66071264  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 12/07/2023\*\*  
Sampling By : ETC\*\* Sampling Time : 10:25 AM\*\*  
Sampling Method : Grab\*\* Received Date : 13/07/2023  
Tested Date : 13/07/2023 – 19/07/2023 Reported Date : 19/07/2023

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	54
pH (on site) *		Electrometric Method	7.5
Temperature *	°C	Laboratory and Field Method	33
Total Suspended Solids #	mg/L	Dried at 103-105 °C (SM:2540 D)	< 5

Physical Apperance : 1. Sample : yellow, lightly SS

2. Container : Normal [ PE 0.5 L, PE 1.0 L , PE 1.8 L, G 1.0 L ]

Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017

2. Miss Apiradee Chuen-arom is Section Head / Mr. Kawee Suthasub is Technical Management.

3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Songpon Phiwan (จ-003-ท-7279)\*

4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By.....

( Miss Apiradee Chuen-arom )

(จ-003-ท-4377)

19/07/2023



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Approved By.....

( Mr. Kawee Suthasub )

(จ-003-ท-0004)

19/07/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No : W6607344

Report No : 6607-1786

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
 Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 Sampling Source : EOEG Plant Sample No. : W 66071264  
 Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit Sampling Date : 12/07/2023  
 Sampling By : ETC Sampling Time : 10:25 AM  
 Sampling Method : Grab Received Date : 13/07/2023  
 Tested Date : 13/07/2023 – 19/07/2023 Reported Date : 19/07/2023

Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	147
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.08
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	0.5

Physical Appearance :  
 1. Sample : yellow, lightly SS  
 2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark :  
 1. Parameter Outside The Scope of The Registration of Department of Industrial Works  
 2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
 3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
 4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
 5. Sampling By Mr. Songpon Phiwuan (ว-003-ก-7279)  
 6. Sampling at UTM 47 P 730914 E 1404772 N



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Examined By.....

( Miss Apiradee Chuen-arom )

19/07/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
 THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
 WITHOUT THE WRITTEN APPROVAL LABORATORY

**TEST REPORT**

Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\*  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\*  
Sampling By : ETC\*\*  
Sampling Method : Grab\*\*  
Tested Date : 20/07/2023 – 27/07/2023

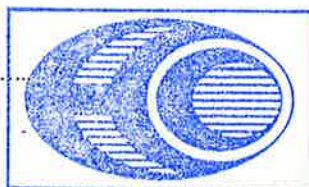
Sample No. : W 66071793  
Sampling Date : 19/07/2023\*\*  
Sampling Time : 10:25 AM\*\*  
Received Date : 20/07/2023  
Reported Date : 27/07/2023

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	57
pH (on site) *		Electrometric Method	7.3
Temperature *	°C	Laboratory and Field Method	32
Total Suspended Solids #	mg/L	Dried at 103-105 °C (SM:2540 D)	6


Physical Apperance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Parkpoom Buasawad (จ-003-ค-7280)\*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By   
(Miss Apiradee Chuen-arom)  
(จ-003-ค-4377)  
27/07/2023



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Approved By   
(Miss Nunnaphat Bakhuntod)  
(จ-003-ค-4367)  
27/07/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No : W6607496

Report No : 6607-2257

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16

Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150

Sampling Source : EOEG Plant Sample No. : W 66071793

Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit Sampling Date : 19/07/2023

Sampling By : ETC Sampling Time : 10:25 AM

Sampling Method : Grab Received Date : 20/07/2023

Tested Date : 20/07/2023 – 27/07/2023 Reported Date : 27/07/2023

Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	175
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.01
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	0.4

Physical Apperance : 1. Sample : yellowish, lightly SS

2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. Parameter Outside The Scope of The Registration of Department of Industrial Works

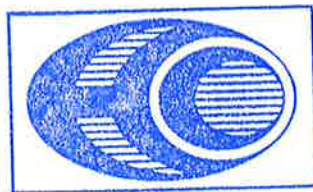
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017

3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]

4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]

5. Sampling By Mr. Parkpoom Buasawad (๖-003-๓-7280)

6. Sampling at UTM 47 P 730914 E 1404772 N



Examined By   
( Miss Apiradee Chuen-arom )  
27/07/2023


REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

**TEST REPORT**


Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\*  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\*  
Sampling By : ETC\*\*  
Sampling Method : Grab\*\*  
Tested Date : 27/07/2023 – 03/08/2023  
Sample No. : W 66072230  
Sampling Date : 26/07/2023\*\*  
Sampling Time : 9:50AM\*\*  
Received Date : 27/07/2023  
Reported Date : 03/08/2023

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	76
pH (on site) *		Electrometric Method	7.5
Temperature *	°C	Laboratory and Field Method	33
Total Suspended Solids #	mg/L	Dried at 103-105 °C (SM:2540 D)	7

Physical Apperance : 1. Sample : yellow, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L , PE 1.8 L, G 1.0 L ]  
Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Parkpoom Buasawad (จ-003-ก-7280)\*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By   
( Miss Apiradee Chuen-arom )  
(จ-003-ค-4377)  
03/08/2023



Approved By   
( Miss Nunnaphat Bakhuntod )  
(จ-003-ค-4367)  
03/08/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6607609

Report No : 6608-0457

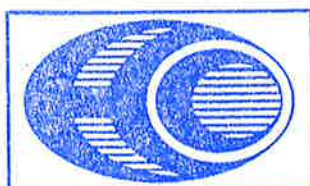
## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66072230  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit Sampling Date : 26/07/2023  
Sampling By : ETC Sampling Time : 9:50 AM  
Sampling Method : Grab Received Date : 27/07/2023  
Tested Date : 27/07/2023 – 03/08/2023 Reported Date : 03/08/2023

Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	178
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.01
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	0.3

Physical Apperance : 1. Sample : yellow, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. Parameter Outside The Scope of The Registration of Department of Industrial Works  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
5. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
6. Sampling at UTM 47 P 730914 E 1404772 N



Examined By.....

(Miss Apiradee Chuen-arom)

03/08/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

**TEST REPORT**

Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\* Sample No. : W 66080131  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 02/08/2023\*\*  
Sampling By : ETC\*\* Sampling Time : 9:30 AM\*\*  
Sampling Method : Grab\*\* Received Date : 03/08/2023  
Tested Date : 03/08/2023 – 10/08/2023 Reported Date : 10/08/2023

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	48
pH (on site) *		Electrometric Method	7.2
Temperature *	°C	Laboratory and Field Method	33
Total Suspended Solids #	mg/L	Dried at 103-105 °C (SM:2540 D)	< 5

Physical Appearance : 1. Sample : yellow, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Miss Apiradee Chuen-arom is Section Head / Mr. Kawee Suthasub is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Supharerk Phatklang (จ-003-ท-5637)\*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By.....  
( Miss Apiradee Chuen-arom )  
(จ-003-ท-4377)  
10/08/2023



Approved By.....  
( Mr. Kawee Suthasub )  
(จ-003-ท-0004)  
10/08/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No : W6608048

Report No : 6608-0921

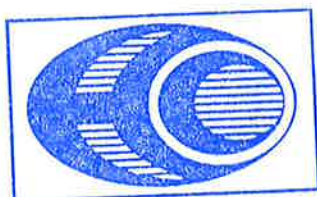
## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 03/08/2023 – 10/08/2023  
Sample No. : W 66080131  
Sampling Date : 02/08/2023  
Sampling Time : 9:30 AM  
Received Date : 03/08/2023  
Reported Date : 10/08/2023

Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	159
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.05
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	1.6

Physical Apperance : 1. Sample : yellow, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. Parameter Outside The Scope of The Registration of Department of Industrial Works  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
5. Sampling By Mr. Supharerk Phatklang (๓-003-๖-5637)  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด



Examined By.....

( Miss Apiradee Chuen-arom )

10/08/2023


REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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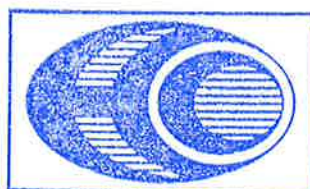
## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\* Sample No. : W 66080916  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 09/08/2023\*\*  
Sampling By : ETC\*\* Sampling Time : 9:00AM\*\*  
Sampling Method : Grab\*\* Received Date : 10/08/2023  
Tested Date : 10/08/2023 – 18/08/2023 Reported Date : 18/08/2023


Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	67
Formaldehyde *	mg/L	Distillation, Colorimetric Method	0.68
pH (on site) *		Electrometric Method	7.3
Temperature *	°C	Laboratory and Field Method	33
Total Suspended Solids #	mg/L	Dried at 103-105 °C (SM:2540 D)	5

Physical Apperance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]  
Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Parkpoom Buasawad (จ-003-ท-0017)\*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By   
( Miss Apiradee Chuen-arom )  
(จ-003-ท-0007)  
18/08/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By   
( Miss Nunnaphat Bakhuntod )  
(จ-003-ท-0005)  
18/08/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6608249

Report No : 6608-1452

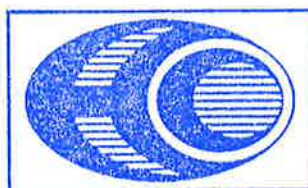
## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66080916  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit Sampling Date : 09/08/2023  
Sampling By : ETC Sampling Time : 9:00 AM  
Sampling Method : Grab Received Date : 10/08/2023  
Tested Date : 10/08/2023 – 18/08/2023 Reported Date : 18/08/2023

Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	143
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	0.9

Physical Apperance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. Parameter Outside The Scope of The Registration of Department of Industrial Works  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
4. Sampling By Mr. Parkpoom Buasawad  
5. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Apiradee Chuen-arom)

18/08/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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WITHOUT THE WRITTEN APPROVAL LABORATORY



Request No : W6608391

Report No : 6608-2077

**TEST REPORT**


Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\* Sample No. : W 66081323  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 16/08/2023\*\*  
Sampling By : ETC\*\* Sampling Time : 9:15 AM\*\*  
Sampling Method : Grab\*\* Received Date : 17/08/2023  
Tested Date : 17/08/2023 – 25/08/2023 Reported Date : 25/08/2023

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	76
pH (on site) *		Electrometric Method	7.3
Temperature *	°C	Laboratory and Field Method	33
Total Suspended Solids #	mg/L	Dried at 103-105 °C (SM:2540 D)	< 5

Physical Apperance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]  
Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Miss Apiradee Chuen-arom is Section Head / Mr. Kawee Suthasub is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Songpon Phiwuan (จ-003-ก-0016)\*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By   
( Miss Apiradee Chuen-arom )  
(จ-003-ก-0007)  
25/08/2023



Approved By   
( Mr. Kawee Suthasub )  
(จ-003-ก-0004)  
25/08/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
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Request No : W6608391

Report No : 6608-2077

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 17/08/2023 – 25/08/2023  
Sample No. : W 66081323  
Sampling Date : 16/08/2023  
Sampling Time : 9:15 AM  
Received Date : 17/08/2023  
Reported Date : 25/08/2023

Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	147
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.01
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	0.1

Physical Apperance :  
1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark :  
1. Parameter Outside The Scope of The Registration of Department of Industrial Works  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
5. Sampling By Mr. Songpon Phiwan  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....  
( Miss Apiradee Chuen-arom )  
25/08/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6608527

Report No : 6609-0078

**TEST REPORT**

Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\* Sample No. : W 66081954  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 23/08/2023\*\*  
Sampling By : ETC\*\* Sampling Time : 9:30 AM\*\*  
Sampling Method : Grab\*\* Received Date : 24/08/2023  
Tested Date : 24/08/2023-30/08/2023 Reported Date : 30/08/2023

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	57
pH (on site) *		Electrometric Method	7.4
Temperature *	°C	Laboratory and Field Method	33
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540 D)	< 5

Physical Apperance : 1. Sample : yellow, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]  
Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Parkpoom Buasawad (จ-003-ก-0017)\*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By

(Miss Apiradee Chuen-arom)

(จ-003-ก-0007)

30/08/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Miss Nunnaphat Bakhuntod)

(จ-003-ก-0005)

30/08/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No : W6608527

Report No : 6609-0078

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 24/08/2023-30/08/2023  
Sample No. : W 66081954  
Sampling Date : 23/08/2023  
Sampling Time : 9:30 AM  
Received Date : 24/08/2023  
Reported Date : 30/08/2023

Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	165
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.01
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	0.1

Physical Apperance : 1. Sample : yellow, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L , PE 1.8 L, G 1.0 L ]

Remark : 1. Parameter Outside The Scope of The Registration of Department of Industrial Works  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
5. Sampling By Mr. Parkpoom Buasawad  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....  
( Miss Apiradee Chuen-arom )  
30/08/2023


REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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WITHOUT THE WRITTEN APPROVAL LABORATORY

**TEST REPORT**

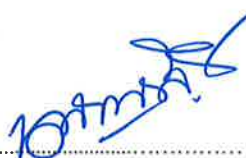
Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\* Sample No. : W 66082401  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 30/08/2023\*\*  
Sampling By : ETC\*\* Sampling Time : 10:00 AM\*\*  
Sampling Method : Grab\*\* Received Date : 31/08/2023  
Tested Date : 31/08/2023 – 08/09/2023 Reported Date : 08/09/2023

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	48
pH (on site) *		Electrometric Method	7.5
Temperature *	°C	Laboratory and Field Method	34
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540 D)	5

Physical Apperance : 1. Sample : yellow, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L , PE 1.8 L, G 1.0 L ]  
Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Songpon Phiwuan (ว-003-ค-0016)\*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By   
( Miss Apiradee Chuen-arom )  
(ว-003-ค-0007)  
08/09/2023



Approved By   
( Miss Nunnaphat Bakhuntod )  
(ว-003-ค-0005)  
08/09/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY



Request No : W6608646

Report No : 6609-0442

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 31/08/2023 – 08/09/2023  
Sample No. : W 66082401  
Sampling Date : 30/08/2023  
Sampling Time : 10:00 AM  
Received Date : 31/08/2023  
Reported Date : 08/09/2023

Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	148
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.03
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	0.5

Physical Apperance : 1. Sample : yellow, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L , PE 1.8 L, G 1.0 L ]

Remark : 1. Parameter Outside The Scope of The Registration of Department of Industrial Works  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
5. Sampling By Mr. Songpon Phiwuan  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By   
( Miss Apiradee Chuen-arom )  
08/09/2023


REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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WITHOUT THE WRITTEN APPROVAL LABORATORY

**TEST REPORT**


Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\*  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\*  
Sampling By : ETC\*\*  
Sampling Method : Grab\*\*  
Tested Date : 07/09/2023 – 19/09/2023  
Sample No. : W 66090630  
Sampling Date : 06/09/2023\*\*  
Sampling Time : 9:33 AM\*\*  
Received Date : 07/09/2023  
Reported Date : 19/09/2023

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	80
pH (on site) *		Electrometric Method	7.2
Temperature *	°C	Laboratory and Field Method	33
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540 D)	7

Physical Apperance : 1. Sample : yellow, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L , PE 1.8 L, G 1.0 L ]  
Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Miss Pompinan Viriyakusolkul (จ-003-ค-0036)\*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By   
( Miss Apiradee Chuen-arom )  
(จ-003-ค-0007)  
19/09/2023



Approved By   
( Miss Nunnaphat Bakhuntod )  
(จ-003-ค-0005)  
19/09/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No : W6609172

Report No : 6609-1302

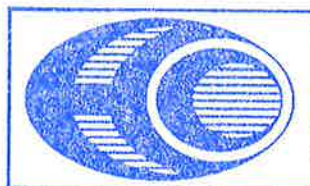
## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66090630  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit Sampling Date : 06/09/2023  
Sampling By : ETC Sampling Time : 9:33 AM  
Sampling Method : Grab Received Date : 07/09/2023  
Tested Date : 07/09/2023 – 19/09/2023 Reported Date : 19/09/2023

Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	143
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.01
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	0.5

Physical Apperance : 1. Sample : yellow, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. Parameter Outside The Scope of The Registration of Department of Industrial Works  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
5. Sampling By Miss Pornpinan Viriyakusolkul  
6. Sampling at UTM 47 P 730914 E 1404772 N



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Examined By



( Miss Apiradee Chuen-arom )

19/09/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

**TEST REPORT**

Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\* Sample No. : W 66091368  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 13/09/2023\*\*  
Sampling By : ETC\*\* Sampling Time : 9:20 AM\*\*  
Sampling Method : Grab\*\* Received Date : 14/09/2023  
Tested Date : 14/09/2023 – 21/09/2023 Reported Date : 22/09/2023

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	77
pH (on site) *		Electrometric Method	7.1
Temperature *	°C	Laboratory and Field Method	33
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540 D)	< 5

Physical Appearance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L , PE 1.8 L, G 1.0 L ]  
Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Miss Apiradee Chuen-arom is Section Head / Mr. Kawee Suthasub is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Parkpoom Buasawad (ว-003-ก-0017)\*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By.....  
(Miss Apiradee Chuen-arom)  
(ว-003-ก-0007)  
22/09/2023



Approved By.....  
(Mr. Kawee Suthasub)  
(ว-003-ก-0004)  
22/09/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No : W6609364

Report No : 6609-1563

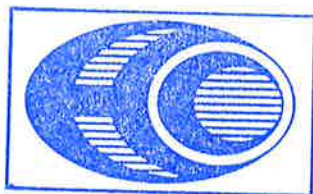
## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOG Plant  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 14/09/2023 – 21/09/2023  
Sample No. : W 66091368  
Sampling Date : 13/09/2023  
Sampling Time : 9:20 AM  
Received Date : 14/09/2023  
Reported Date : 22/09/2023

Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	158
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.01
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	0.2

Physical Appearance :  
1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark :  
1. Parameter Outside The Scope of The Registration of Department of Industrial Works  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
5. Sampling By Mr. Parkpoom Buasawad  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....  
(Miss Apiradee Chuen-arom)

22/09/2023

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WITHOUT THE WRITTEN APPROVAL LABORATORY




**TEST REPORT**


Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\* Sample No. : W 66091902  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 20/09/2023\*\*  
Sampling By : ETC\*\* Sampling Time : 9:46 AM\*\*  
Sampling Method : Grab\*\* Received Date : 21/09/2023  
Tested Date : 21/09/2023 – 28/09/2029 Reported Date : 28/09/2023

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	63
pH (on site) *		Electrometric Method	7.2
Temperature *	°C	Laboratory and Field Method	32
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540 D)	6

Physical Appearance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]  
Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Miss Pornpinan Viriyakusolkul (จ-003-ก-0036)\*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By   
( Miss Apiradee Chuen-arom )  
(จ-003-ก-0007)  
28/09/2023



Approved By   
( Miss Nunnaphat Bakhuntod )  
(จ-003-ก-0005)  
28/09/2023

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Request No : W6609519

Report No : 6609-2182

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 21/09/2023 – 28/09/2023  
Sample No. : W 66091902  
Sampling Date : 20/09/2023  
Sampling Time : 9:46 AM  
Received Date : 21/09/2023  
Reported Date : 28/09/2023

Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	164
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.01
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	0.1

Physical Appearance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

- Remark :
- Parameter Outside The Scope of The Registration of Department of Industrial Works
  - SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017
  - MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]
  - LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]
  - Sampling By Miss Pornpinan Viriyakusolkul
  - Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....  
(Miss Apiradee Chuen-arom)  
28/09/2023


REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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WITHOUT THE WRITTEN APPROVAL LABORATORY

**TEST REPORT**


Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\* Sample No. : W 66092382  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 27/09/2023\*\*  
Sampling By : ETC\*\* Sampling Time : 10:00 AM\*\*  
Sampling Method : Grab\*\* Received Date : 28/09/2023  
Tested Date : 28/09/2023 – 06/10/2023 Reported Date : 09/10/2023

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	79
pH (on site) *		Electrometric Method	7.3
Temperature *	°C	Laboratory and Field Method	33
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540 D)	11

Physical Apperance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]  
Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Miss Apiradee Chuen arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Miss Pornpinan Viriyakusolkul (ว-003-ค-0036)\*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By   
(Miss Apiradee Chuen-arom)  
(ว-003-ค-0007)  
09/10/2023



Approved By   
(Miss Nunnaphat Bakhuntod)  
(ว-003-ค-0005)  
09/10/2023

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Request No : W6609644

Report No : 6610-0566

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 28/09/2023 – 06/10/2023  
Sample No. : W 66092382  
Sampling Date : 27/09/2023  
Sampling Time : 10:00 AM  
Received Date : 28/09/2023  
Reported Date : 09/10/2023

Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	143
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.01
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	1.7

Physical Appearance :  
1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark :  
1. Parameter Outside The Scope of The Registration of Department of Industrial Works  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
5. Sampling By Miss Pornpinan Viriyakusolkul  
6. Sampling at UTM 47 P 730914 E 1404772 N



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Examined By.....  
(Miss Apiradee Chuen-arom)

09/10/2023


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**TEST REPORT**


Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\* Sample No. : W 66100482  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 04/10/2023\*\*  
Sampling By : ETC\*\* Sampling Time : 9:45 AM\*\*  
Sampling Method : Grab\*\* Received Date : 05/10/2023  
Tested Date : 05/10/2023 – 12/10/2023 Reported Date : 12/10/2023

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	84
pH (on site) *		Electrometric Method	7.0
Temperature *	°C	Laboratory and Field Method	29
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540 D)	10

Physical Apperance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L , PE 1.8 L, G 1.0 L ]  
Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Songpon Phiwan (จ-003-ท-0016)\*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By   
( Miss Apiradee Chuen-arom )  
(จ-003-ท-0007)  
12/10/2023



Approved By   
( Miss Nunnaphat Bakhuntod )  
(จ-003-ท-0005)  
12/10/2023

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Request No : W6610123

Report No : 6610-1045

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 05/10/2023 – 12/10/2023  
Sample No. : W 66100482  
Sampling Date : 04/10/2023  
Sampling Time : 9:45 AM  
Received Date : 05/10/2023  
Reported Date : 12/10/2023

Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	144
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.01
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	1.9

Physical Appearance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. Parameter Outside The Scope of The Registration of Department of Industrial Works  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
5. Sampling By Mr. Songpon Phiwuan  
6. Sampling at UTM 47 P 730914 E 1404772 N



Examined By.....

( Miss Apiradee Chuen-arom )

12/10/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

**TEST REPORT**

Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\* Sample No. : W 66101109  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 11/10/2023\*\*  
Sampling By : ETC\*\* Sampling Time : 9:50 AM\*\*  
Sampling Method : Grab\*\* Received Date : 12/10/2023  
Tested Date : 12/10/2023 – 20/10/2023 Reported Date : 20/10/2023

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	99
pH (on site) *		Electrometric Method	6.5
Temperature *	°C	Laboratory and Field Method	29
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540 D)	8

Physical Appearance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]  
Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Songpon Phiwuan (ว-003-ค-0016)\*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By.....  
( Miss Apiradee Chuen-arom )  
(ว-003-ค-0007)  
20/10/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....  
( Miss Nunnaphat Bakhuntod )  
(ว-003-ค-0005)  
20/10/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No : W6610306

Report No : 6610-1590

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 12/10/2023 – 20/10/2023  
Sample No. : W 66101109  
Sampling Date : 11/10/2023  
Sampling Time : 9:50 AM  
Received Date : 12/10/2023  
Reported Date : 20/10/2023

Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	140
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.01
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	0.9

Physical Appearance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. Parameter Outside The Scope of The Registration of Department of Industrial Works  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
5. Sampling By Mr. Songpon Phiwan  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By   
( Miss Apiradee Chuen-arom )  
20/10/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

**TEST REPORT**

Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\* Sample No. : W 66101620  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 18/10/2023\*\*  
Sampling By : ETC\*\* Sampling Time : 9:45 AM\*\*  
Sampling Method : Grab\*\* Received Date : 19/10/2023  
Tested Date : 19/10/2023 – 24/10/2023 Reported Date : 24/10/2023

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	95
pH (on site) *		Electrometric Method	6.7
Temperature *	°C	Laboratory and Field Method	30
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540 D)	25

Physical Apperance : 1. Sample : yellow, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L , PE 1.8 L, G 1.0 L ]  
Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Miss Jiraporn Pankong is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Miss Pornpinan Viriyakusolkul (จ-003-ค-0036)\*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By

(Miss Jiraporn Pankong)

(จ-003-ค-0009)

24/10/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

( Miss Nunnaphat Bakhuntod )

(จ-003-ค-0005)

24/10/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6610443

Report No : 6610-2125

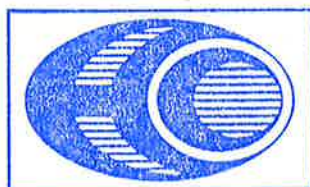
## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66101620  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit Sampling Date : 18/10/2023  
Sampling By : ETC Sampling Time : 9:45 AM  
Sampling Method : Grab Received Date : 19/10/2023  
Tested Date : 19/10/2023 – 24/10/2023 Reported Date : 24/10/2023

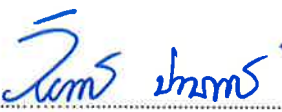
Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	141
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.01
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	0.5

Physical Apperance : 1. Sample : yellow, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. Parameter Outside The Scope of The Registration of Department of Industrial Works  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
5. Sampling By Miss Pornpinan Viriyakusolkul  
6. Sampling at UTM 47 P 730914 E 1404772 N



Examined By



(Miss Jiraporn Pankong)

24/10/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY



**TEST REPORT**

Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\* Sample No. : W 66101942  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 25/10/2023\*\*  
Sampling By : ETC\*\* Sampling Time : 9:25 AM\*\*  
Sampling Method : Grab\*\* Received Date : 26/10/2023  
Tested Date : 26/10/2023 – 02/11/2023 Reported Date : 02/11/2023

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	76
pH (on site) *		Electrometric Method	7.1
Temperature *	°C	Laboratory and Field Method	32
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540 D)	8

Physical Apperance : 1. Sample : yellow, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]  
Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Supharerk Phatklang (จ-003-ค-0031)\*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By.....

(Miss Apiradee Chuen-arom)

(จ-003-ค-0007)

02/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Approved By.....

(Miss Nunnaphat Bakhuntod)

(จ-003-ค-0005)

02/11/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No : W6610556

Report No : 6611-0284

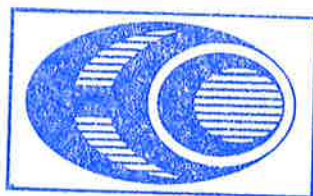
## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 26/10/2023 – 02/11/2023  
Sample No. : W 66101942  
Sampling Date : 25/10/2023  
Sampling Time : 9:25 AM  
Received Date : 26/10/2023  
Reported Date : 02/11/2023

Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	148
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.01
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	0.6

Physical Appearance :  
1. Sample : yellow, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark :  
1. Parameter Outside The Scope of The Registration of Department of Industrial Works  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
5. Sampling By Mr. Supharerk Phatklang  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Apiradee Chuen-arom)

02/11/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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WITHOUT THE WRITTEN APPROVAL LABORATORY

**TEST REPORT**

Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\* Sample No. : W 66110199  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 01/11/2023\*\*  
Sampling By : ETC\*\* Sampling Time : 9:35 AM\*\*  
Sampling Method : Grab\*\* Received Date : 02/11/2023  
Tested Date : 02/11/2023-07/11/2023 Reported Date : 09/11/2023

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	82
pH (on site) *		Electrometric Method	7.3
Temperature *	°C	Laboratory and Field Method	32
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540 D)	8

Physical Apperance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L , PE 1.8 L, G 1.0 L ]  
Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Parkpoom Buasawad (จ-003-ก-0017)\*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By.....  
( Miss Apiradee Chuen-arom )  
(จ-003-ก-0007)  
09/11/2023



Approved By.....  
( Miss Nunnaphat Bakhuntod )  
(จ-003-ก-0005)  
09/11/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6611039

Report No : 6611-0541

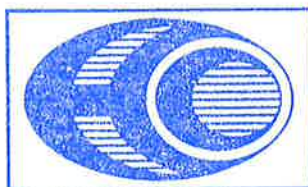
## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 02/11/2023-07/11/2023  
Sample No. : W 66110199  
Sampling Date : 01/11/2023  
Sampling Time : 9:35 AM  
Received Date : 02/11/2023  
Reported Date : 09/11/2023

Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	139
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.01
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	0.2

Physical Apperance :  
1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L , PE 1.8 L, G 1.0 L ]

Remark :  
1. Parameter Outside The Scope of The Registration of Department of Industrial Works  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
5. Sampling By Mr. Parkpoom Buasawad  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....  
(Miss Apiradee Chuen-arom)

09/11/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

**TEST REPORT**


Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\*  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\*  
Sampling By : ETC\*\*  
Sampling Method : Grab\*\*  
Tested Date : 09/11/2023 – 18/11/2023

Sample No. : W 66110901  
Sampling Date : 08/11/2023\*\*  
Sampling Time : 9:55 AM\*\*  
Received Date : 09/11/2023  
Reported Date : 18/11/2023


Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	65
pH (on site) *		Electrometric Method	6.7
Temperature *	°C	Laboratory and Field Method	32
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540 D)	10

Physical Appearance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Parkpoom Buasawad (จ-003-ก-0017)\*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By   
(Miss Apiradee Chuen-arom)  
(จ-003-ก-0007)  
18/11/2023



Approved By   
(Miss Nunnaphat Bakhuntod)  
(จ-003-ก-0005)  
18/11/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6611241

Report No : 6611-1678

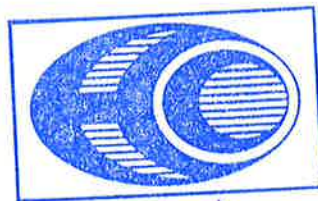
## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : น้ำทิ้งของโครงการที่ระบายนจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 09/11/2023 – 18/11/2023  
Sample No. : W 66110901  
Sampling Date : 08/11/2023  
Sampling Time : 9:55 AM  
Received Date : 09/11/2023  
Reported Date : 18/11/2023

Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	162
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.01
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	0.1

Physical Apperance :  
1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L , PE 1.8 L, G 1.0 L ]

Remark :  
1. Parameter Outside The Scope of The Registration of Department of Industrial Works  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
5. Sampling By Mr. Parkpoom Buasawad  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....  
(Miss Apiradee Chuen-arom)

18/11/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No : W6611411

Report No : 6611-1808

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16\*\*

Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*

Sampling Source : EOEG Plant\*\* Sample No. : W 66111404

Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 15/11/2023\*\*

Sampling By : ETC\*\* Sampling Time : 9:25 AM\*\*

Sampling Method : Grab\*\* Received Date : 16/11/2023

Tested Date : 16/11/2023 – 29/11/2023 Reported Date : 29/11/2023

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	148
pH (on site) *		Electrometric Method	6.9
Temperature *	°C	Laboratory and Field Method	31
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540 D)	32

Physical Apperance : 1. Sample : yellow, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Miss Pornpinan Viriyakusolkul (ว-003-ก-0036)\*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By

( Miss Apiradee Chuen-arom )

( ว-003-ก-0007 )

29/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

( Miss Nunnaphat Bakhuntod )

( ว-003-ก-0005 )

29/11/2023

REPORT 3D TESTS REFER TO SUBMITTED SAMPLES ONLY  
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WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No : W6611411

Report No : 6611-1808

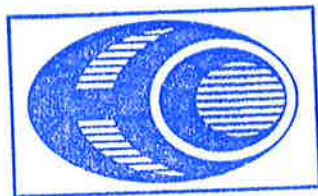
## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 16/11/2023 – 22/11/2023  
Sample No. : W 66111404  
Sampling Date : 15/11/2023  
Sampling Time : 9:25 AM  
Received Date : 16/11/2023  
Reported Date : 22/11/2023

Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	159
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.01
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	0.5

Physical Appearance :  
1. Sample : yellow, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark :  
1. Parameter Outside The Scope of The Registration of Department of Industrial Works  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
5. Sampling By Miss Pompinan Viriyakusolkul  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....  
(Miss Apiradee Chuen-arom)  
22/11/2023


REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

**TEST REPORT**


Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\* Sample No. : W 66111799  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 22/11/2023\*\*  
Sampling By : ETC\*\* Sampling Time : 9:35 AM\*\*  
Sampling Method : Grab\*\* Received Date : 23/11/2023  
Tested Date : 23/11/2023 – 29/11/2023 Reported Date : 29/11/2023

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	110
pH (on site) *		Electrometric Method	7.2
Temperature *	°C	Laboratory and Field Method	32
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540 D)	13

Physical Apperance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L , PE 1.8 L, G 1.0 L ]  
Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Songpon Phiwuan (ว-003-ก-0016)\*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By   
( Miss Apiradee Chuen-arom )  
(ว-003-ก-0007)  
29/11/2023



Approved By   
( Miss Nunnaphat Bakhuntod )  
(ว-003-ก-0005)  
29/11/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No : W6611543

Report No : 6611-2320

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 23/11/2023 – 29/11/2023  
Sample No. : W 66111799  
Sampling Date : 22/11/2023  
Sampling Time : 9:35 AM  
Received Date : 23/11/2023  
Reported Date : 29/11/2023

Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	136
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.08
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	0.2

Physical Appearance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. Parameter Outside The Scope of The Registration of Department of Industrial Works  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
5. Sampling By Mr. Songpon Phiwuan  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....  
(Miss Apiradee Chuen-arom)  
29/11/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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WITHOUT THE WRITTEN APPROVAL LABORATORY



**TEST REPORT**

Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\* Sample No. : W 66112082  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 29/11/2023\*\*  
Sampling By : ETC\*\* Sampling Time : 10:15 AM\*\*  
Sampling Method : Grab\*\* Received Date : 30/11/2023  
Tested Date : 30/11/2023 – 07/12/2023 Reported Date : 07/12/2023

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	102
pH (on site) *		Electrometric Method	7.0
Temperature *	°C	Laboratory and Field Method	30
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540 D)	7

Physical Apperance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]  
Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Songpon Phiwuan (จ-003-ค-0016)\*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By.....  
(Miss Apiradee Chuen-arom)  
(จ-003-ค-0007)  
07/12/2023



Approved By .....  
(Miss Nunnaphat Bakhuntod)  
(จ-003-ค-0005)  
07/12/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6611653

Report No : 6612-0351

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 30/11/2023 – 07/12/2023  
Sample No. : W 66112082  
Sampling Date : 29/11/2023  
Sampling Time : 10:15 AM  
Received Date : 30/11/2023  
Reported Date : 07/12/2023

Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	140
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.01
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	1.1

Physical Apperance :  
1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L , PE 1.8 L, G 1.0 L ]

Remark :  
1. Parameter Outside The Scope of The Registration of Department of Industrial Works  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
5. Sampling By Mr. Songpon Phiwan  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....  
(Miss Apiradee Chuen-arom)

07/12/2023


REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

**TEST REPORT**

Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\* Sample No. : W 66120482  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 06/12/2023\*\*  
Sampling By : ETC\*\* Sampling Time : 9:30 AM\*\*  
Sampling Method : Grab\*\* Received Date : 07/12/2023  
Tested Date : 07/12/2023 – 12/12/2023 Reported Date : 12/12/2023


Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	98
pH (on site) *		Electrometric Method	7.6
Temperature *	°C	Laboratory and Field Method	34
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540 D)	9

Physical Apperance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L , PE 1.8 L, G 1.0 L ]  
Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Supharerk Phatklang (ว-003-ค-0031)\*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By   
( Miss Apiradee Chuen-arom )  
(ว-003-ค-0007)  
12/12/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By   
( Miss Nunnaphat Bakhuntod )  
(ว-003-ค-0005)  
12/12/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No : W6612127

Report No : 6612-0707

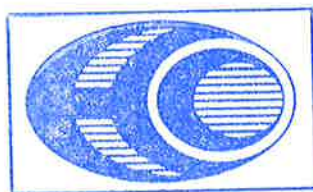
## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 07/12/2023 – 12/12/2023  
Sample No. : W 66120482  
Sampling Date : 06/12/2023  
Sampling Time : 9:30 AM  
Received Date : 07/12/2023  
Reported Date : 12/12/2023

Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	184
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.01
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	0.1

Physical Apperance :  
1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark :  
1. Parameter Outside The Scope of The Registration of Department of Industrial Works  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
5. Sampling By Mr. Supharerk Phatklang  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....  
( Miss Apiradee Chuen-arom )  
12/12/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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**TEST REPORT**

Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\* Sample No. : W 66121207  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 13/12/2023\*\*  
Sampling By : ETC\*\* Sampling Time : 9:30 AM\*\*  
Sampling Method : Grab\*\* Received Date : 14/12/2023  
Tested Date : 14/12/2023 – 20/12/2023 Reported Date : 20/12/2023

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	75
pH (on site) *		Electrometric Method	7.1
Temperature *	°C	Laboratory and Field Method	31
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540 D)	< 5

Physical Apperance : 1. Sample : yellowish, lightly SS

2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017

2. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.

3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Songpon Phiwan (ว-003-ค-0016)\*

4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By .....

( Miss Apiradee Chuen-arom )

(ว-003-ค-0007)

20/12/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By .....

( Miss Nunnaphat Bakhuntod )

(ว-003-ค-0005)

20/12/2023

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Request No : W6612365

Report No : 6612-1174

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 14/12/2023 – 20/12/2023  
Sample No. : W 66121207  
Sampling Date : 13/12/2023  
Sampling Time : 9:30 AM  
Received Date : 14/12/2023  
Reported Date : 20/12/2023

Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	136
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.06
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	0.7

Physical Apperance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L , PE 1.8 L, G 1.0 L ]

- Remark :
- Parameter Outside The Scope of The Registration of Department of Industrial Works
  - SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017
  - MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]
  - LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]
  - Sampling By Mr. Songpon Phiwuan
  - Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....  
(Miss Apiradee Chuen-arom)  
20/12/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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WITHOUT THE WRITTEN APPROVAL LABORATORY

**TEST REPORT**

Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\* Sample No. : W 66121667  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 20/12/2023\*\*  
Sampling By : ETC\*\* Sampling Time : 9:40 AM\*\*  
Sampling Method : Grab\*\* Received Date : 21/12/2023  
Tested Date : 21/12/2023 – 05/01/2024 Reported Date : 05/01/2024

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	80
pH (on site) *		Electrometric Method	7.4
Temperature *	°C	Laboratory and Field Method	32
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540 D)	8

Physical Appearance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L , PE 1.8 L, G 1.0 L ]  
Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Method; for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Parkpoom Buasawad (ว-003-ท-0017)\*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By.....  
( Miss Apiradee Chuen-arom )  
(ว-003-ท-0007)  
05/01/2024



Approved By.....  
( Miss Nunnaphat Bakhuntod )  
(ว-003-ท-0005)  
05/01/2024

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6612528

Report No : 6701-0196

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 21/12/2023 – 05/01/2024  
Sample No. : W 66121667  
Sampling Date : 20/12/2023  
Sampling Time : 9:40 AM  
Received Date : 21/12/2023  
Reported Date : 05/01/2024

Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	140
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.22
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	1.2

Physical Apperance :  
1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L , PE 1.8 L, G 1.0 L ]

Remark :  
1. Parameter Outside The Scope of The Registration of Department of Industrial Works  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
5. Sampling By Mr. Parkpoom Buasawad  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....  
(Miss Apiradee Chuen-arom)

05/01/2024


REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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**TEST REPORT**

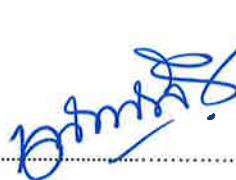
Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\* Sample No. : W 66121980  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 27/12/2023\*\*  
Sampling By : ETC\*\* Sampling Time : 9:10 AM\*\*  
Sampling Method : Grab\*\* Received Date : 28/12/2023  
Tested Date : 28/12/2023 – 09/01/2024 Reported Date : 09/01/2024

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	94
pH (on site) *		Electrometric Method	7.1
Temperature *	°C	Laboratory and Field Method	30
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540 D)	17

Physical Apperance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L , PE 1.8 L, G 1.0 L ]  
Remark : 1. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Parkpoom Buasawad (ว-003-ค-0017)\*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By   
( Miss Apiradee Chuen-arom )  
(ว-003-ค-0007)  
09/01/2024



Approved By   
( Miss Nunnaphat Bakhuntod )  
(ว-003-ค-0005)  
09/01/2024

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
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Request No : W6612623

Report No : 6701-0520

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 28/12/2023 – 09/01/2024  
Sample No. : W 66121980  
Sampling Date : 27/12/2023\*\*  
Sampling Time : 9:10 AM\*\*  
Received Date : 28/12/2023  
Reported Date : 09/01/2024

Parameter	Unit	Method	Result
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	141
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.01
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	0.1

Physical Apperance :  
1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark :  
1. Parameter Outside The Scope of The Registration of Department of Industrial Works  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
5. Sampling By Mr. Parkpoom Buasawad  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....  
( Miss Apiradee Chuen-arom )  
09/01/2024

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6607199

Report No : 6607-1364

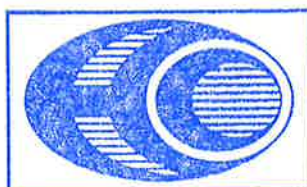
## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสียของนิคม WHA  
Sampling By : Customer  
Sampling Method : Grab  
Tested Date : 07/07/2023 – 15/07/2023  
Sample No. : W 66070791  
Sampling Date : 06/07/2023  
Sampling Time : --  
Received Date : 07/07/2023  
Reported Date : 15/07/2023

Parameter	Unit	Method	Result	Standard <sup>1)</sup>
Biochemical Oxygen Demand	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	6.8	≤ 500
Chemical Oxygen Demand	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	73	≤ 750
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	186	-
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.01	≤ 1
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	0.7	≤ 10
pH (on site)		Electrometric Method	7.2	5.5-9.0
Temperature	°C	Laboratory and Field Method	30	≤ 45
Total Dissolved Solids	mg/L	Dried at 180 °C (SM:2540C)	852	≤ 3,000
Total Suspended Solids	mg/L	Dried at 103-105 °C (SM:2540 D)	6	≤ 200

Physical Appearance : 1. Sample : yellow, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. /1 Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
5. Sampling at UTM 47 P 0730729 E 1404613 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

Examined By.....

( Miss Apiradee Chuen-arom)

15 / 07 / 2023

Request No : W6608309

Report No : 6608-2014

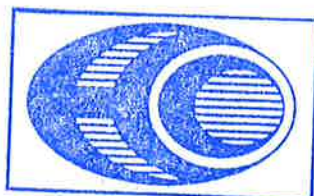
## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสียของนิคม WHA  
Sampling By : Customer  
Sampling Method : Grab  
Tested Date : 14/08/2023-23/08/2023  
Sample No. : W 66081085  
Sampling Date : 11/08/2023  
Sampling Time : --  
Received Date : 14/08/2023  
Reported Date : 23/08/2023

Parameter	Unit	Method	Result	Standard <sup>1)</sup>
Biochemical Oxygen Demand	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	6.0	≤ 500
Chemical Oxygen Demand	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	48	≤ 750
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	154	-
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.09	≤ 1
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	0.3	≤ 10
pH (on site)		Electrometric Method	6.7	5.5-9.0
Temperature	°C	Laboratory and Field Method	33	≤ 45
Total Dissolved Solids	mg/L	Dried at 180 °C (SM:2540C)	674	≤ 3,000
Total Suspended Solids	mg/L	Dried at 103-105 °C (SM:2540 D)	5	≤ 200

Physical Appearance : 1. Sample : lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. /1 Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
5. Sampling at UTM 47 P 0730729 E 1404613 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By

( Miss Apiradee Chuen-arom )

23 / 08 / 2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No : W6609247

Report No : 6609-1303

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16

Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150

Sampling Source : EOEG Plant Sample No. : W 66090914

Sample Name : จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสียของนิคม WHA Sampling Date : 08/09/2023

Sampling By : Customer Sampling Time : --

Sampling Method : Grab Received Date : 09/09/2023

Tested Date : 09/09/2023 – 18/09/2023 Reported Date : 18/09/2023

Parameter	Unit	Method	Result	Standard <sup>1)</sup>
Biochemical Oxygen Demand	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	7.8	≤ 500
Chemical Oxygen Demand	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	67	≤ 750
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	161	-
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.01	≤ 1
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	0.8	≤ 10
pH (on site)		Electrometric Method	7.1	5.5-9.0
Temperature	°C	Laboratory and Field Method	32	≤ 45
Total Dissolved Solids	mg/L	Dried at 180 degree celsius (SM:2540C)	740	≤ 3,000
Total Suspended Solids	mg/L	Dried at 103-105 degree celsius (SM:2540 D)	5	≤ 200

Physical Apperance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. /1 Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]  
5. Sampling at UTM 47 P 0730729 E 1404613 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....



( Miss Apiradee Chuen-arom )

18 / 09 / 2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No : W6610148

Report No : 6610-1051

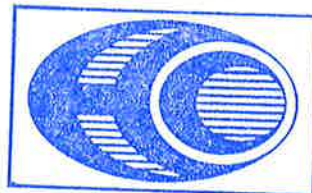
## TEST REPORT

Customer	:	PTT Global Chemical Public Company Limited Branch 16	Sample No.	:	W 66100612
Address	:	9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150	Sampling Date	:	05/10/2023
Sampling Source	:	EOEG Plant	Sampling Time	:	--
Sample Name	:	จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสียของนิคม WHA	Received Date	:	06/10/2023
Sampling By	:	Customer	Reported Date	:	12/10/2023
Sampling Method	:	Grab			
Tested Date	:	06/10/2023 – 12/10/2023			

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Biochemical Oxygen Demand	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	18.6	≤ 500
Chemical Oxygen Demand	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	88	≤ 750
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	157	-
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.01	≤ 1
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	1.4	≤ 10
pH (on site)		Electrometric Method	6.7	5.5-9.0
Temperature	°C	Laboratory and Field Method	31	≤ 45
Total Dissolved Solids	mg/L	Dried at 180 degree celsius (SM:2540C)	736	≤ 3,000
Total Suspended Solids	mg/L	Dried at 103-105 degree celsius (SM:2540 D)	< 5	≤ 200

Physical Apperance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

- Remark :
1. /1 Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)
  2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017
  3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]
  4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L ]
  5. Sampling at UTM 47 P 0730729 E 1404613 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....



( Miss Apiradee Chuen-arom )

12 / 10 / 2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No : W6611242

Report No : 6611-1677

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66110902  
Sample Name : จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสียของนิคม WHA Sampling Date : 08/11/2023  
Sampling By : Customer Sampling Time : --  
Sampling Method : Grab Received Date : 09/11/2023  
Tested Date : 09/11/2023 – 18/11/2023 Reported Date : 18/11/2023

Parameter	Unit	Method	Result	Standard <sup>1)</sup>
Biochemical Oxygen Demand	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	9.9	≤ 500
Chemical Oxygen Demand	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	65	≤ 750
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	192	—
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.01	≤ 1
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	1.2	≤ 10
pH (on site)		Electrometric Method	7.7	5.5-9.0
Temperature	°C	Laboratory and Field Method	30	≤ 45
Total Dissolved Solids	mg/L	Dried at 180 degree celsius (SM:2540C)	668	≤ 3,000
Total Suspended Solids	mg/L	Dried at 103-105 degree celsius (SM:2540 D)	9	≤ 200

Physical Apperance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

- Remark : 1. /1 Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L. ]  
5. Sampling at UTM 47 P 0730729 E 1404613 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

( Miss Apiradee Chuen-arom)

18 / 11 / 2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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WITHOUT THE WRITTEN APPROVAL LABORATORY



Request No : W6612140

Report No : 6612-0835

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66120526  
Sample Name : จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสียของนิคม WHA Sampling Date : 06/12/2023  
Sampling By : Customer Sampling Time : --  
Sampling Method : Grab Received Date : 07/12/2023  
Tested Date : 07/12/2023 – 13/12/2023 Reported Date : 13/12/2023

Parameter	Unit	Method	Result	Standard <sup>1/</sup>
Biochemical Oxygen Demand	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	21.9	≤ 500
Chemical Oxygen Demand	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	98	≤ 750
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	131	-
Formaldehyde	mg/L	Distillation, Colorimetric Method	0.01	≤ 1
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	0.6	≤ 10
pH (on site)		Electrometric Method	6.8	5.5-9.0
Temperature	°C	Laboratory and Field Method	34	≤ 45
Total Dissolved Solids	mg/L	Dried at 180 degree celsius (SM:2540C)	607	≤ 3,000
Total Suspended Solids	mg/L	Dried at 103-105 degree celsius (SM:2540 D)	9	≤ 200

Physical Apperance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. /1 Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)  
2. SM = Standard Methods for the Examination of Water and Waste water, APHA, AWWA, WEF, 23rd Edition, 2017  
3. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
4. LOQ = Level of Quantitation [ LOQ of Oil and Grease = 3.0 mg/L. ]  
5. Sampling at UTM 47 P 0730729 E 1404613 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY

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WITHOUT THE WRITTEN APPROVAL LABOFATORY

Examined By.....



( Miss Apiradee Chuen-arom )

13 / 12 / 2023

Request No : W6611654

Report No : 6612-0359


**TEST REPORT**

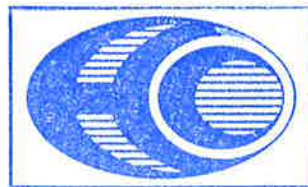
Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\*  
Sample Name : จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสีย ##\*\*  
Sampling By : ETC\*\*  
Sampling Method : Grab\*\*  
Tested Date : 30/11/2023 – 09/12/2023  
Sample No. : W 66112083  
Sampling Date : 29/11/2023\*\*  
Sampling Time : 10:30 AM\*\*  
Received Date : 30/11/2023  
Reported Date : 09/12/2023


Parameter	Unit	Method	Result	Standard <sup>1</sup>
Arsenic *	mg/L	Continuous Hydride Generation/AAS Method (SM:3114B)	0.0050	≤ 0.25
Barium @	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.18	≤ 1
Biochemical Oxygen Demand #	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	8.2	≤ 500
Cadmium @	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.03	≤ 0.03
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	73	≤ 750
Color (Original) *	ADMI	ADMI Weighted Ordinate Spectrophotometric Method (SM:2120F)	< 20	≤ 600
Color (pH 7.0) *	ADMI	ADMI Weighted Ordinate Spectrophotometric Method (SM:2120F)	22	≤ 600

Physical Appearance : 1. Sample : yellowish, lightly SS, nonsmelling  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], PE 1.0 L, PE 1.8 L, G 0.25 L ]

Remark : 1. /1 Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)  
2. @ = ISO/IEC 17025:2017 Accredited by TISL, # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
4. \* = Test Report/Sampling marked Not Accredited Sampling By Mr. Songpon Phiwuan (จ-003-ค-0016)\*  
5. ## จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสียของนิคมอุตสาหกรรม ดับบลิวเอชเอ ตะวันออก (มาบตาพุด)  
6. Sampling at UTM 47 P 0730729 E 1404613 N

Examined By   
( Miss Apiradee Chuen-arom )  
(จ-003-ค-0007)  
09/12/2023



Approved By   
( Miss Nunnaphat Bakhuntod )  
(จ-003-ค-0005)  
09/12/2023

บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด  
REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6611654

Report No : 6612-0359

**TEST REPORT**

Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\*  
Sample Name : จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสีย ##\*\*  
Sampling By : ETC\*\*  
Sampling Method : Grab\*\*  
Tested Date : 30/11/2023 – 09/12/2023  
Sample No. : W 66112083  
Sampling Date : 29/11/2023\*\*  
Sampling Time : 10:30 AM\*\*  
Received Date : 30/11/2023  
Reported Date : 09/12/2023

Parameter	Unit	Method	Result	Standard <sup>1)</sup>
Copper @	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.09	≤ 2
Cyanide *	mg/L as HCN	Distillation, Colorimetric Method (SM:4500 CN- C, E)	< 0.020	≤ 0.2
Free Chlorine *	mg/L as Cl <sub>2</sub>	Iodometric Method (SM:4500 -Cl B)	< 0.5	≤ 1
Hexavalent Chromium *	mg/L as Cr <sup>6+</sup>	Filtration, Colorimetric Method (SM:3500-Cr B)	< 0.050	≤ 0.25
Lead @	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.03	≤ 0.2
Manganese @	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.15	≤ 5
Mercury #	mg/L	Cold-Vapor Atomic Absorption Spectrometric Method (SM:3112B)	< 0.0010	≤ 0.005

Physical Apperance :  
1. Sample : yellowish, lightly SS, nonsmelling  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], PE 1.0 L, PE 1.8 L, G 0.25 L ]

Remark :  
1. /1 Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)  
2. @ = ISO/IEC 17025:2017 Accredited by TISI., # = ISO/IEC 17025:2017 Accredited by DSS,  
SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
4. \* = Test Report/Sampling marked Not Accredited Sampling By Mr. Songpon Phiwan (ว-003-ค-0016)\*  
5. ## จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสียของนิคมอุตสาหกรรม ดับบลิวเอชเอ ตะวันออก (มาตาฟุต)  
6. Sampling at UTM 47 P 0730729 E 1404613 N

Examined By.....  
( Miss Apiradee Chuen-arom )  
(ว-003-ค-0007)  
09/12/2023



บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Approved By.....  
( Miss Nunnaphat Bakhuntod )  
(ว-003-ค-0005)  
09/12/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No : W6611654

Report No : 6612-0359


**TEST REPORT**

Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\*  
Sample Name : จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสีย ###\*  
Sampling By : ETC\*\*  
Sampling Method : Grab\*\*  
Tested Date : 30/11/2023 – 09/12/2023  
Sample No. : W 66112083  
Sampling Date : 29/11/2023\*\*  
Sampling Time : 10:30 AM\*\*  
Received Date : 30/11/2023  
Reported Date : 09/12/2023

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Nickel @	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.03	≤ 1
pH (on site) *		Electrometric Method	7.0	5.5-9.0
Phenol *	mg/L	Distillation, Direct Photometric Method (SM:5530B,D)	< 0.005	≤ 1
Selenium *	mg/L	Digestion, Hydride Generation/AAS Method (SM:3030F, 3114B&C)	< 0.0020	≤ 0.02
Sulfide *	mg/L as H <sub>2</sub> S	ZnS Precipitation, Iodometric Method (SM:4500 -S2- F)	0.67	≤ 1
Temperature *	°C	Laboratory and Field Method	30	≤ 45
Total Dissolved Solids #	mg/L	Dried at 180 degree celsius (SM:2540C)	680	≤ 3000

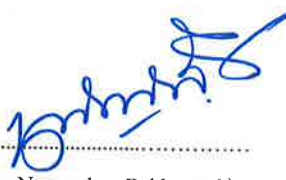
Physical Apperance :  
1. Sample : yellowish, lightly SS, nonsmelling  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], PE 1.0 L, PE 1.8 L, G 0.25 L ]

Remark :  
1. /1 Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)  
2. @ = ISO/IEC 17025:2017 Accredited by TISI., # = ISO/IEC 17025:2017 Accredited by DSS,  
SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
4. \* = Test Report/Sampling marked Not Accredited Sampling By Mr. Songpon Phiwan (จ-003-ค-0016)\*  
5. ## จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสียของนิคมอุตสาหกรรม ดับบลิวเอชเอ ตะวันออก (มาบตาพุด)  
6. Sampling at UTM 47 P 0730729 E 1404613 N

Examined By   
( Miss Apiradee Chuen-arom )  
(จ-003-ค-0007)  
09/12/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By   
( Miss Nunnaphat Bakhuntod )  
(จ-003-ค-0005)  
09/12/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY



**TEST REPORT**

Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\*  
Sample Name : จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสีย ##\*\*  
Sampling By : ETC\*\*  
Sampling Method : Grab\*\*  
Tested Date : 30/11/2023 – 09/12/2023  
Sample No. : W 66112083  
Sampling Date : 29/11/2023\*\*  
Sampling Time : 10:30 AM\*\*  
Received Date : 30/11/2023  
Reported Date : 09/12/2023

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Total Kjeldahl Nitrogen *	mg/L as NH <sub>3</sub> -N	Macro Kjeldahl Method (SM:4500 -Norg B)	< 5	≤ 100
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540D)	7	≤ 200
Trivalent Chromium *	mg/L as Cr <sup>3+</sup>	Digestion, Direct ICP Method; Filtration, Colorimetric Method; Calculation (SM:3500 -Cr B, 3120B)	< 0.03	≤ 0.75
Zinc @	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.77	≤ 5

- Physical Apperance :  
1. Sample : yellowish, lightly SS, nonsmelling  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], PE 1.0 L, PE 1.8 L, G 0.25 L ]
- Remark :  
1. /1 Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)  
2. @ = ISO/IEC 17025:2017 Accredited by TISI., # = ISO/IEC 17025:2017 Accredited by DSS,  
SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
4. \* = Test Report/Sampling marked Not Accredited Sampling By Mr. Songpon Phiwan (ว-003-ค-0016)\*  
5. ## จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสียของนิคมอุตสาหกรรม ดับบลิวเอชเอ ตะวันออก (มาบตาพุด)  
6. Sampling at UTM 47 P 0730729 E 1404613 N

Examined By.....  
( Miss Apiradee Chuen-arom )  
( ว-003-ค-0007 )  
09/12/2023



Approved By.....  
( Miss Nunnaphat Bakhuntod )  
( ว-003-ค-0005 )  
09/12/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6611654

Report No : 6612-0359

**TEST REPORT**

Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\*  
Sample Name : จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสีย ##\*\*  
Sampling By : ETC\*\*  
Sampling Method : Grab\*\*  
Tested Date : 30/11/2023 – 09/12/2023  
Sample No. : W 66112083  
Sampling Date : 29/11/2023\*\*  
Sampling Time : 10:30 AM\*\*  
Received Date : 30/11/2023  
Reported Date : 09/12/2023

Parameter	Unit	Method	Result	Standard <sup>/1</sup>
Fluoride #	mg/L	Ion-Selective Electrode Method (SM:4500 -F- C)	1.16	≤ 5
Formaldehyde *	mg/L	Distillation, Colorimetric Method	0.01	≤ 1
Iron @	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.55	≤ 10
Oil and Grease @	mg/L	Partition-Gravimetric Method (SM:5520B)	1.2	≤ 10
Silver @	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.05	≤ 1
Surfactants *	mg/L as MBAS	Anionic Surfactants as MBAS Method (SM:5540C)	< 0.40	≤ 30

Physical Apperance :  
1. Sample : yellowish, lightly SS, nonsmelling  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], PE 1.0 L, PE 1.8 L, G 0.25 L ]

Remark :  
1. /1 Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)  
2. Parameter Outside The Scope of The Registration of Department of Industrial Works  
3. @ = ISO/IEC 17025:2017 Accredited by TISI., # = ISO/IEC 17025:2017 Accredited by DSS,  
SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
4. Miss Nunnaphat Bakhuntod is Technical Management.  
5. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Songpon Phiwan \*  
6. ## จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสียของนิคมอุตสาหกรรม ดับบลิวเอชเอ ตะวันออก (มาตาฟุต)  
7. Sampling at UTM 47 P 0730729 E 1404613 N  
8. MDL = Method Detection Limit [ MDL of Formaldehyde = 0.20 mg/L ]  
9. LOQ = Level of Quantitation [LOQ of Oil and Grease = 3.0 mg/L ]



Examined By.....

( Miss Nunnaphat Bakhuntod )

09/12/2023

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Request No : W6611654

Report No : 6612-0359

## TEST REPORT

Customer	: PTT Global Chemical Public Company Limited Branch 16	Sample No.	W 66112083
Address	: 9-9/1 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150	Sampling Date	29/11/2023
Sampling Source	: EOEG Plant	Sampling Time	10:30 AM
Sample Name	: จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสีย ##	Received Date	30/11/2023
Sampling By	: ETC	Reported Date	09/12/2023
Sampling Method	: Grab		
Tested Date	: 30/11/2023 – 09/12/2023		

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Organochlorine Pesticides				
alpha-BHC	µg/L	Liquid-Liquid Extraction / GC-MS (SM:6410B)	Not Detected	****
beta-BHC	µg/L	Liquid-Liquid Extraction / GC-MS (SM:6410B)	Not Detected	****
gamma-BHC (Lindane)	µg/L	Liquid-Liquid Extraction / GC-MS (SM:6410B)	Not Detected	****
delta-BHC	µg/L	Liquid-Liquid Extraction / GC-MS (SM:6410B)	Not Detected	****
Heptachlor	µg/L	Liquid-Liquid Extraction / GC-MS (SM:6410B)	Not Detected	****
Aldrin	µg/L	Liquid-Liquid Extraction / GC-MS (SM:6410B)	Not Detected	****
Heptachlor epoxide (isomer B)	µg/L	Liquid-Liquid Extraction / GC-MS (SM:6410B)	Not Detected	****
trans-Chlordane	µg/L	Liquid-Liquid Extraction / GC-MS (SM:6410B)	Not Detected	****
Endosulfan I	µg/L	Liquid-Liquid Extraction / GC-MS (SM:6410B)	Not Detected	****
cis-Chlordane	µg/L	Liquid-Liquid Extraction / GC-MS (SM:6410B)	Not Detected	****
Dieldrin	µg/L	Liquid-Liquid Extraction / GC-MS (SM:6410B)	Not Detected	****
4,4'-DDE	µg/L	Liquid-Liquid Extraction / GC-MS (SM:6410B)	Not Detected	****
Endrin	µg/L	Liquid-Liquid Extraction / GC-MS (SM:6410B)	Not Detected	****
Endosulfan II	µg/L	Liquid-Liquid Extraction / GC-MS (SM:6410B)	Not Detected	****
4,4'-DDD	µg/L	Liquid-Liquid Extraction / GC-MS (SM:6410B)	Not Detected	****
Endrin aldehyde	µg/L	Liquid-Liquid Extraction / GC-MS (SM:6410B)	Not Detected	****
Endosulfan sulfate	µg/L	Liquid-Liquid Extraction / GC-MS (SM:6410B)	Not Detected	****
4,4'-DDT	µg/L	Liquid-Liquid Extraction / GC-MS (SM:6410B)	Not Detected	****
Endrin ketone	µg/L	Liquid-Liquid Extraction / GC-MS (SM:6410B)	Not Detected	****
Methoxychlor	µg/L	Liquid-Liquid Extraction / GC-MS (SM:6410B)	Not Detected	****

Physical Appearance : 1. Sample : yellowish, lightly SS, nonsmelling  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], PE 1.0 L, PE 1.8 L, G 0.25 L ]

Remark : 1. /1 Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.  
3. \*\*\*\* ต้องตรวจไม่พบตามวิธีตรวจสอบที่กำหนด / Sampling By Mr. Songpon Phiwuan  
4. จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสียของนิคมอุตสาหกรรม ดับบลิวเอชเอ ตะวันออก (มาบตาพุด)  
5. Sampling at UTM 47 P 0730729 E 1404613 N

Examined By.....

(Miss Apiradee Chuen-arom)

(ว-003-ค-0007)

09/12/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(Miss Nunnaphat Bakhuntod)

(ว-003-ค-0005)

09/12/2023

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Request No. W6606014

Report No. 6606-1592-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
 Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
 Amphur Muang Rayong, Rayong 21150  
 Sampling Source : EOEG Plant Sample No. : W 66060081  
 Sample Name : ริมรั้วด้านทิศเหนือโครงการ(บ่อเหนือหน้า)## Sampling Date : 31/05/2023  
 Sampling By : ETC Sampling Time : 9:10 AM  
 Sampling Method : Grab Received Date : 01/06/2023  
 Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1)</sup>
Arsenic	mg/L	Continuous Hydride Generation/AAS Method (SM:3114B)	< 0.0020	≤ 0.1
Beryllium	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.01	≤ 0.01
Cadmium	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.003	≤ 2.0
Chromium	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.03	≤ 6.0
Hexavalent Chromium	mg/L as Cr <sup>6+</sup>	Filtration, Colorimetric Method (SM:3500 -Cr B)	< 0.050	≤ 6.0
Lead	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.010	≤ 4.0
Manganese	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.28	≤ 33
Mercury	mg/L	Cold-Vapor Atomic Absorption Spectrometric Method (SM:3112B)	< 0.0010	≤ 0.7

Physical Appearance : 1. Sample : lightly SS  
 2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]

Remark : 1./1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
 2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
 3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
 4. Sampling At UTM 47 P 731078 E 1405208 N  
 5.## ริมรั้วด้านทิศเหนือโครงการ (บ่อเหนือหน้า) (Up-gradient)

SUPPLEMENT TO TEST REPORT NO. 6606-1592

Examined By 

( Miss Apiradee Chuen-arom )

(ว-003-ค-4377)

02 / 01 / 2024



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Approved By 

( Miss Nunnaphat Bakhuntod )

(ว-003-ค-2205)

02 / 01 / 2024

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 WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY

Request No. W6606014

Report No. 6606-1592-1

## TEST REPORT


Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060081  
Sample Name : ริมรั้วด้านทิศเหนือโครงการ(บ่อเหนือหน้า)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 9:10 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1)</sup>
Nickel	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.03	≤ 5.0
Selenium	mg/L	Digestion, Hydride Generation/AAS Method (SM:3030F, 3114B&C)	< 0.0020	≤ 12
Vanadium	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.02	≤ 17

Physical Apperance : 1. Sample : lightly SS  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]


Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
4. Sampling At UTM 47 P 731078 E 1405208 N  
5.## ริมรั้วด้านทิศเหนือโครงการ (บ่อเหนือหน้า (Up-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1592

Examined By   
( Miss Apiradee Chuen-arom )  
(ว-003-ค-4377)  
02 / 01 / 2024



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Approved By   
( Miss Nunnaphat Bakhuntod )  
(ว-003-ค-2205)  
02 / 01 / 2024

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Request No. W6606014

Report No. 6606-1592-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060081  
Sample Name : ริมรั้วด้านทิศเหนือโครงการ(บ่อเหนือหน้า)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 9:10 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>/1</sup>
Zinc	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	7.54	≤ 10

Physical Apperance : 1. Sample : lightly SS  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
4. Sampling At UTM 47 P 731078 E 1405208 N  
5.## ริมรั้วด้านทิศเหนือโครงการ (บ่อเหนือหน้า (Up-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1592

Examined By.....

( Miss Apiradee Chuen-arom )

( ว-003-ค-4377 )

02 / 01 / 2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

( Miss Nunnaphat Bakhuntod )

( ว-003-ค-2205 )

02 / 01 / 2024

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Request No. W6606014

Report No. 6606-1592-I

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060081  
Sample Name : ริมรั้วด้านทิศเหนือโครงการ(บ่อเหนือหน้า)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 9:10 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1</sup>
pH (on site)		Electrometric Method	6.0	6.5-9.2 ***

Physical Appearance : 1. Sample : lightly SS  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. \*\*\* ค่า pH จากจุดเก็บตัวอย่างบ่อกับน้ำกับจุดเก็บตัวอย่างบ่อเหนือหน้าที่เปลี่ยนแปลงจะต้องไม่เกินหนึ่งระดับ และ  
ไม่อยู่นอกช่วงค่าเกณฑ์อนุโลมสูงสุดของมาตรฐาน คุณภาพน้ำบาดาลที่ใช้บริโภค  
3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
4. Sampling At UTM 47 P 731078 E 1405208 N  
5.## ริมรั้วด้านทิศเหนือโครงการ (บ่อเหนือหน้า (Up-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1592

Examined By.....  
( Miss Apiradee Chuen-arom )  
(ว-003-ค-4377)  
02 / 01 / 2024



Approved By .....  
( Miss Nunnaphat Bakhuntod )  
(ว-003-ค-2205)  
02 / 01 / 2024

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Request No. W6606014

Report No. 6606-1592-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
 Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 Sampling Source : EOEG Plant Sample No. : W 66060081  
 Sample Name : ริมรั้วด้านทิศเหนือโครงการ(บ่อเหนือหน้า)## Sampling Date : 31/05/2023  
 Sampling By : ETC Sampling Time : 9:10 AM  
 Sampling Method : Grab Received Date : 01/06/2023  
 Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1/</sup>
Boron	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.10	-
Cobalt	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.02	-
Copper	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.03	-
Iron	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	33.1	-
Titanium	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.02	-

Physical Appearance : 1. Sample : lightly SS  
 2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]

Remark : 1./1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
 2. Parameter Outside The Scope of The Registration of Department of Industrial Works  
 3. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
 4. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
 5. Sampling At UTM 47 P 731078 E 1405208 N  
 6.## ริมรั้วด้านทิศเหนือโครงการ (บ่อเหนือหน้า) (Up-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1592



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....  
 ( Miss Apiradee Chuen-arom )

02 / 01 / 2024

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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 WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. W6606014

Report No. 6606-1592-1

## TEST REPORT


Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road,  
Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060081  
Sample Name : รีมรูด้านทิศเหนือโครงการ(บ่อเหนือหน้า)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 9:10 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Results	Standard <sup>1/</sup>
<b>Volatile Organic Compounds</b>				
- Benzene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.2
- Carbon tetrachloride	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.4
- 1,2-Dichloroethane	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.5
- 1,1-Dichloroethylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.1
- cis-1,2-Dichloroethylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 2.0
- trans-1,2-Dichloroethylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 5.0
- Ethylbenzene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 2.0
- Styrene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 24
- Tetrachloroethylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.9
- Toluene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 5.0
- 1,2,4 - Trichlorobenzene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 24
- 1,1,1-Trichloroethane	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.2

Physical Appearance : 1. Sample : lightly SS  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]


Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7283)  
3. ## รีมรูด้านทิศเหนือโครงการ (บ่อเหนือหน้า (Up-gradient)) / Sampling At UTM 47 P 731078 E 1405208 N

SUPPLEMENT TO TEST REPORT NO. 6606-1592

Examined By   
( Miss Apiradee Chuen-arom )  
(ว-003-ค-4377)  
02/01/2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By   
( Miss Nunnaphat Bakhuntod )  
( ว-003-ค-2205 )  
02/01/2024

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Request No. W6606014

Report No. 6606-1592-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road,  
Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060081  
Sample Name : ริมรั้วด้านทิศเหนือโครงการ(บ่อเหนือหน้า)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 9:10 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

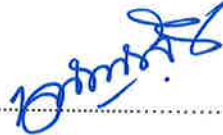
Parameter	Unit	Method	Results	Standard <sup>/1</sup>
<b>Volatile Organic Compounds</b>				
- 1,1,2-Trichloroethane	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.8
- Trichloroethylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 4.4
- Vinyl Chloride	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.03
- p,m-Xylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 24
- o-Xylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 24
- Xylene Total	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 24
- Methylene chloride	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 6.0

Physical Apperance : 1. Sample : lightly SS  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]  
Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Mr. Parkpoom Buasawad (จ-003-ค-7280)  
3. ## ริมรั้วด้านทิศเหนือโครงการ (บ่อเหนือหน้า (Up-gradient)) / Sampling At UTM 47 P 731078 E 1405208 N  
SUPPLEMENT TO TEST REPORT NO. 6606-1592

Examined By   
( Miss Apiradee Chuen-arom )  
(จ-003-ค-4377)  
02/01/2024



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Approved By   
( Miss Nunnaphat Bakhuntod )  
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02/01/2024

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Request No. W6606014

Report No. 6606-1592-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road,  
Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060081  
Sample Name : ริมรั้วด้านทิศเหนือโครงการ(บ่อเหนือหน้า)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 9:10 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1</sup>
<b>Total Petroleum Hydrocarbons ***</b>				
- TPH (C <sub>&gt;8</sub> -C <sub>16</sub> )	mg/L	3510 C /8015 D	ND	≤ 1.7
- n-Nonane				
- n-Decane				
- n-Dodecane				
- n-Tetradecane				
- n-Hexadecane				

Physical Apperance : 1. Sample : lightly SS  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Eastern Thai Consulting 1992 Co., Ltd., (Mr. Parkpoom Buasawad (๖-003-๓-7280))  
3. \*\*\* Tested by SECOT Co.,Ltd. (๖-239)  
4. MDL = Method Detection Limit [ MDL of TPH (C<sub>>8</sub>-C<sub>16</sub>) = < 0.025 mg/L ]  
5. ND = non-detectable / Sampling At UTM 47 P 731078 E 1405208 N  
6. ## ริมรั้วด้านทิศเหนือโครงการ (บ่อเหนือหน้า) (Up-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1592



Examined By

( Miss Apiradee Chuen-arom )

02 / 01 / 2024

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Request No. W6606014

Report No. 6606-1593-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
 Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 Sampling Source : EOEG Plant Sample No. : W 66060082  
 Sample Name : รีมรูด้านทิศตะวันตกโครงการ(บ่อทำน้ำ)## Sampling Date : 31/05/2023  
 Sampling By : ETC Sampling Time : 11:05 AM  
 Sampling Method : Grab Received Date : 01/06/2023  
 Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1)</sup>
Arsenic	mg/L	Continuous Hydride Generation/AAS Method (SM:3114B)	< 0.0020	≤ 0.1
Beryllium	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.01	≤ 0.01
Cadmium	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.003	≤ 2.0
Chromium	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.03	≤ 6.0
Hexavalent Chromium	mg/L as Cr <sup>6+</sup>	Filtration, Colorimetric Method (SM:3500 -Cr B)	< 0.050	≤ 6.0
Lead	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.010	≤ 4.0
Manganese	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.26	≤ 33
Mercury	mg/L	Cold-Vapor Atomic Absorption Spectrometric Method (SM:3112B)	< 0.0010	≤ 0.7

Physical Appearance : 1. Sample : lightly SS  
 2. Container : Normal [ PE 0.5 L [ 3 Bottle], PE 2.0 L, G 2.5 L]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
 2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
 3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
 4. Sampling At UTM 47 P 730370 E 1404509 N  
 5.## รีมรูด้านทิศตะวันตกโครงการ (บ่อทำน้ำ (Down-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1593

 Examined By...  
 (Miss Apiradee Chuen-arom)

(ว-003-ค-4377)

02 / 01 / 2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

 Approved By...  
 (Miss Nunnaphat Bakhuntod)

(ว-003-ค-2205)

02 / 01 / 2024

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Request No. W6606014

Report No. 6606-1593-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
 Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
 Amphur Muang Rayong, Rayong 21150  
 Sampling Source : EOEG Plant Sample No. : W 66060082  
 Sample Name : รีมรูด้านทิศตะวันตกโครงการ(บ่อทำน้ำ)## Sampling Date : 31/05/2023  
 Sampling By : ETC Sampling Time : 11:05 AM  
 Sampling Method : Grab Received Date : 01/06/2023  
 Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1/</sup>
Nickel	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.03	≤ 5.0
Selenium	mg/L	Digestion, Hydride Generation/AAS Method (SM:3030F, 3114B&C)	< 0.0020	≤ 12
Vanadium	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.02	≤ 17

Physical Appearance : 1. Sample : lightly SS  
 2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
 2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
 3. Sampling By Mr. Parkpoom Buasawad (ว-003-ก-7280)  
 4. Sampling At UTM 47 P 730370 E 1404509 N  
 5.## รีมรูด้านทิศตะวันตกโครงการ (บ่อทำน้ำ (Down-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1593

Examined By :   
 (Miss Apiradee Chuen-arom)

(ว-003-ก-4377)

02 / 01 / 2024



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Approved By :   
 (Miss Nunnaphat Bakhuntod)

(ว-003-ก-2205)

02 / 01 / 2024

Request No. W6606014

Report No. 6606-1593-1

## TEST REPORT


Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060082  
Sample Name : รีมรูดานทิสตะวันตกโครงการ(บ่อทำนน้ำ)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 11:05 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Zinc	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	5.03	≤ 10

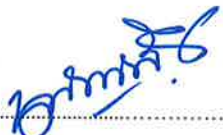
Physical Apperance : 1. Sample : lightly SS  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
4. Sampling At UTM 47 P 730370 E 1404509 N  
5.## รีมรูดานทิสตะวันตกโครงการ (บ่อทำนน้ำ (Down-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1593

Examined By..   
( Miss Apiradee Chuen-arom )  
( ว-003-ค-4377 )  
02 / 01 / 2024



Approved By   
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Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060082  
Sample Name : รีมรูดานทิตตะวันตกโครงการ(บ่อท่ายน้ำ)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 11:05 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1/</sup>
pH (on site)		Electrometric Method	5.8	6.5-9.2 ***

Physical Apperance : 1. Sample : lightly SS  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. \*\*\* ค่า pH จากจุดเก็บตัวอย่างบ่อท่ายน้ำกับจุดเก็บตัวอย่างบ่อเหนือน้ำที่เปลี่ยนแปลงจะต้องไม่เกินหนึ่งระดับ และ  
ไม่อยู่นอกช่วงค่าเกณฑ์อนุโลมสูงสุดของมาตรฐาน คุณภาพน้ำบาดาลที่ใช้บริโภค  
3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
4. Sampling At UTM 47 P 730370 E 1404509 N  
5.## รีมรูดานทิตตะวันตกโครงการ (บ่อท่ายน้ำ (Down-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1593

Examined By.....  
( Miss Apiradee Chuen-arom )  
(ว-003-ค-4377)  
02 / 01 / 2024



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Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060082  
Sample Name : ริมรั้วด้านทิศตะวันตกโครงการ(บ่อท้ายน้ำ)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 11:05 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1)</sup>
Boron	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.15	-
Cobalt	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.02	-
Copper	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.03	-
Iron	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	24.6	-
Titanium	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.02	-

Physical Apperance : 1. Sample : lightly SS  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Parameter Outside The Scope of The Registration of Department of Industrial Works  
3. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
4. Sampling By Mr. Parkpoom Buasawad (๖-003-๓-7280)  
5. Sampling At UTM 47 P 730370 E 1404509 N  
6.## ริมรั้วด้านทิศตะวันตกโครงการ (บ่อท้ายน้ำ (Down-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1593



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

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Examined By.....

( Miss Apiradee Chuen-arom )

02 / 01 / 2024



Request No. W6606014

Report No. 6606-1593-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road,  
Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060082  
Sample Name : รีมรื้อด้านทิศตะวันตกโครงการ(บ่อท้ายน้ำ)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 11:05 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Results	Standard <sup>1/</sup>
<b>Volatile Organic Compounds</b>				
- Benzene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.2
- Carbon tetrachloride	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.4
- 1,2-Dichloroethane	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.5
- 1,1-Dichloroethylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.1
- cis-1,2-Dichloroethylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 2.0
- trans-1,2-Dichloroethylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 5.0
- Ethylbenzene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 2.0
- Styrene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 24
- Tetrachloroethylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.9
- Toluene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 5.0
- 1,2,4 - Trichlorobenzene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 24
- 1,1,1-Trichloroethane	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.2

Physical Appearance : 1. Sample : lightly SS

2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
3. ## รีมรื้อด้านทิศตะวันตกโครงการ (บ่อท้ายน้ำ (Down-gradient)) / Sampling At UTM 47 P 730370 E 1404509 N

SUPPLEMENT TO TEST REPORT NO. 6606-1593

Examined By .....

( Miss Apiradee Chuen-arom )

( ว-003-ค-4377 )

02/01/2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By .....

( Miss Nunnaphat Bakhuntod )

( ว-003-ค-2205 )

02/01/2024

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Request No. W6606014

Report No. 6606-1593-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road,  
Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060082  
Sample Name : รีมรื้อด้านทิศตะวันตกโครงการ(บ่อท้ายน้ำ)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 11:05 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Results	Standard <sup>1)</sup>
<b>Volatile Organic Compounds</b>				
- 1,1,2-Trichloroethane	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.8
- Trichloroethylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 4.4
- Vinyl Chloride	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.03
- p,m-Xylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 24
- o-Xylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 24
- Xylene Total	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 24
- Methylene chloride	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 6.0

Physical Appearance :

1. Sample : lightly SS

2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]

Remark :

1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)

2. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)

3. ## รีมรื้อด้านทิศตะวันตกโครงการ (บ่อท้ายน้ำ (Down-gradient)) / Sampling At UTM 47 P 730370 E 1404509 N

SUPPLEMENT TO TEST REPORT NO. 6606-1593

Examined By



( Miss Apiradee Chuen-arom )

( ว-003-ค-4377 )

02/01/2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

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Approved By



( Miss Nunnaphat Bakhuntod )

( ว-003-ค-2205 )

02/01/2024

Request No. W6606014

Report No. 6606-1593-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road,  
Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060082  
Sample Name : รีมรื้อด้านทิศตะวันตกโครงการ(บ่อท้ายน้ำ)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 11:05 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1</sup>
<b>Total Petroleum Hydrocarbons ***</b>				
- TPH (C <sub>&gt;8</sub> -C <sub>16</sub> )	mg/L	3510 C /8015 D	ND	≤ 1.7
- n-Nonane				
- n-Decane				
- n-Dodecane				
- n-Tetradecane				
- n-Hexadecane				

Physical Apperance : 1. Sample : lightly SS  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]  
Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Eastern Thai Consulting 1992 Co., Ltd., (Mr. Parkpoom Buasawad (ว-003-ค-7280))  
3. \*\*\* Tested by SECOT Co.,Ltd. (ว-239)  
4. MDL = Method Detection Limit [ MDL of TPH (C<sub>>8</sub>-C<sub>16</sub>) = < 0.025 mg/L ]  
5. ND = non-detectable / Sampling At UTM 47 P 730370 E 1404509 N  
6. ## รีมรื้อด้านทิศตะวันตกโครงการ (บ่อท้ายน้ำ) (Down-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1593



Examined By .....

( Miss Apiradee Chuen-arom )

02 / 01 / 2024

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Request No. W6606014

Report No. 6606-1594-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060083  
Sample Name : รีมรื้อด้านทิศใต้โครงการ(บ่อกลางน้ำ)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 10:20 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1)</sup>
Arsenic	mg/L	Continuous Hydride Generation/AAS Method (SM:3114B)	< 0.0020	≤ 0.1
Beryllium	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.01	≤ 0.01
Cadmium	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.003	≤ 2.0
Chromium	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.03	≤ 6.0
Hexavalent Chromium	mg/L as Cr <sup>6+</sup>	Filtration, Colorimetric Method (SM:3500 -Cr B)	< 0.050	≤ 6.0
Lead	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.010	≤ 4.0
Manganese	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.34	≤ 33
Mercury	mg/L	Cold-Vapor Atomic Absorption Spectrometric Method (SM:3112B)	< 0.0010	≤ 0.7

Physical Appearance : 1. Sample : lightly SS  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
4. Sampling At UTM 47 P 730789 E 1404730 N  
5.## รีมรื้อด้านทิศใต้โครงการ (บ่อกลางน้ำ (Middle-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1594

Examined By .....

( Miss Apiradee Chuen-arom )

(ว-003-ค-4377)

02 / 01 / 2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By .....

( Miss Nunnaphat Bakhuntod )

(ว-003-ค-2205)

02 / 01 / 2024

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Request No. W6606014

Report No. 6606-1594-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060083  
Sample Name : ริมร้วด้านทิศใต้โครงการ(บ่อกกลางน้ำ)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 10:20 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1)</sup>
Nickel	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.03	≤ 5.0
Selenium	mg/L	Digestion, Hydride Generation/AAS Method (SM:3030F, 3114B&C)	< 0.0020	≤ 12
Vanadium	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.02	≤ 17

Physical Appearance : 1. Sample : lightly SS  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]

Remark : 1./1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
4. Sampling At UTM 47 P 730789 E 1404730 N  
5.## ริมร้วด้านทิศใต้โครงการ (บ่อกกลางน้ำ (Middle-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1594

Examined By 

( Miss Apiradee Chuen-arom )

(ว-003-ค-4377)

02 / 01 / 2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By 

( Miss Nunnaphat Bakhuntod )

(ว-003-ค-2205)

02 / 01 / 2024

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Request No. W6606014

Report No. 6606-1594-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060083  
Sample Name : ริมรั้วด้านทิศใต้โครงการ(บ่อกกลางน้ำ)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 10:20 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Zinc	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	11.9	≤ 10

Physical Apperance : 1. Sample : lightly SS  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]

Remark : 1./1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
4. Sampling At UTM 47 P 730789 E 1404730 N  
5.## ริมรั้วด้านทิศใต้โครงการ (บ่อกกลางน้ำ (Middle-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1594

Examined By.....  
( Miss Apiradee Chuen-arom )  
(ว-003-ค-4377)  
02 / 01 / 2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....  
( Miss Nunnaphat Bakhuntod )  
(ว-003-ค-2205)  
02 / 01 / 2024

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Request No. W6606014

Report No. 6606-1594-1

## TEST REPORT


Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060083  
Sample Name : รีมรูด้านทิศใต้โครงการ(บ่อกลางน้ำ)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 10:20 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1/</sup>
pH (on site)		Electrometric Method	6.2	6.5-9.2 ***


Physical Appearance : 1. Sample : lightly SS  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. \*\*\* ค่า pH จากจุดเก็บตัวอย่างบ่อกลางน้ำกับจุดเก็บตัวอย่างบ่อน้ำที่เปลี่ยนแปลงจะต้องไม่เกินหนึ่งระดับ และ  
ไม่อยู่นอกช่วงค่าเกณฑ์อนุโลมสูงสุดของมาตรฐาน คุณภาพน้ำบาดาลที่ใช้บริ โภค  
3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
4. Sampling At UTM 47 P 730789 E 1404730 N  
5.## รีมรูด้านทิศใต้โครงการ (บ่อกลางน้ำ (Middle-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1594

Examined By   
( Miss Apiradee Chuen-arom )  
(ว-003-ค-4377)  
02 / 01 / 2024



Approved By   
( Miss Nunnaphat Bakhuntod )  
(ว-003-ค-2205)  
02 / 01 / 2024

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด  
REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No. W6606014

Report No. 6606-1594-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060083  
Sample Name : รีมรูดานทิสไดโครการ(บอกลางน้ำ)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 10:20 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Boron	mg/L	Digestion,Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.05	-
Cobalt	mg/L	Digestion,Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.02	-
Copper	mg/L	Digestion,Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.03	-
Iron	mg/L	Digestion,Inductively Coupled Plasma Method (SM:3030F, 3120B)	3.57	-
Titanium	mg/L	Digestion,Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.02	-

Physical Apperance : 1. Sample : lightly SS  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Parameter Outside The Scope of The Registration of Department of Industrial Works  
3. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
4. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
5. Sampling At UTM 47 P 730789 E 1404730 N  
6.## รีมรูดานทิสไดโครการ (บอกลางน้ำ (Middle-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1594



Examined By.....

( Miss Apiradee Chuen-arom )

02 / 01 / 2024

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Request No. W6606014

Report No. 6606-1594-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road,  
Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060083  
Sample Name : รีมรื้อด้านทิศใต้โครงการ(บ่อกกลางน้ำ)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 10:20 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024


Parameter	Unit	Method	Results	Standard <sup>1/</sup>
<b>Volatile Organic Compounds</b>				
- Benzene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.2
- Carbon tetrachloride	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.4
- 1,2-Dichloroethane	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.5
- 1,1-Dichloroethylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.1
- cis-1,2-Dichloroethylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 2.0
- trans-1,2-Dichloroethylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 5.0
- Ethylbenzene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 2.0
- Styrene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 24
- Tetrachloroethylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.9
- Toluene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 5.0
- 1,2,4 - Trichlorobenzene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 24
- 1,1,1-Trichloroethane	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.2

Physical Appearance : 1. Sample : lightly SS

2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
3. ## รีมรื้อด้านทิศใต้โครงการ (บ่อกกลางน้ำ (Middle-gradient)) / Sampling At UTM 47 P 730789 E 1404730 N

SUPPLEMENT TO TEST REPORT NO. 6606-1594

Examined By   
( Miss Apiradee Chuen-arom )

( ว-003-ค-4377 )

02/01/2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By   
( Miss Nunnaphat Bakhuntod )

( ว-003-ค-2205 )

02/01/2024

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Request No. W6606014

Report No. 6606-1594-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road,  
Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060083  
Sample Name : รีมรื้อด้านทิศใต้โครงการ(บ่อกกลางน้ำ)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 10:20 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Results	Standard <sup>1/</sup>
<b>Volatile Organic Compounds</b>				
- 1,1,2-Trichloroethane	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.8
- Trichloroethylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 4.4
- Vinyl Chloride	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.03
- p,m-Xylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 24
- o-Xylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 24
- Xylene Total	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 24
- Methylene chloride	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 6.0

Physical Apperance : 1. Sample : lightly SS


2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]

Remark : 1./1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
3. ## รีมรื้อด้านทิศใต้โครงการ (บ่อกกลางน้ำ (Middle-gradient)) / Sampling At UTM 47 P 730789 E 1404730 N

SUPPLEMENT TO TEST REPORT NO. 6606-1594

Examined By   
( Miss Apiradee Chuen-arom )  
(ว-003-ค-4377)  
02/01/2024



Approved By   
( Miss Nunnaphat Bakhuntod )  
( ว-003-ค-2205 )  
02/01/2024

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Request No. W6606014

Report No. 6606-1594-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road,  
Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060083  
Sample Name : รีมร่วด้านทิศใต้โครงการ(บ่อกลางน้ำ)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 10:20 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1</sup>
<b>Total Petroleum Hydrocarbons ***</b>				
- TPH (C <sub>&gt;8</sub> -C <sub>16</sub> )	mg/L	3510 C /8015 D	ND	≤ 1.7
- n-Nonane				
- n-Decane				
- n-Dodecane				
- n-Tetradecane				
- n-Hexadecane				

Physical Apperance : 1. Sample : lightly SS  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]  
Remark : 1. /I Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Eastern Thai Consulting 1992 Co., Ltd. (Mr. Parkpoom Buasawad (๖-003-ก-7280))  
3. \*\*\* Tested by SECOT Co.,Ltd. (๖-239)  
4. MDL = Method Detection Limit [ MDL of TPH (C<sub>>8</sub>-C<sub>16</sub>) = < 0.025 mg/L ]  
5. ND = non-detectable / Sampling At UTM 47 P 730789 E 1404730 N  
6. ## รีมร่วด้านทิศใต้โครงการ (บ่อกลางน้ำ (Middle-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1594



Examined By

( Miss Apiradee Chuen-arom )

02 / 01 / 2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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Request No. W6606014

Report No. 6606-1595-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060084  
Sample Name : บริเวณแนวท่อใต้ดิน Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 10:50 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Arsenic	mg/L	Continuous Hydride Generation/AAS Method (SM:3114B)	< 0.0020	≤ 0.1
Beryllium	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.01	≤ 0.01
Cadmium	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.003	≤ 2.0
Chromium	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.03	≤ 6.0
Hexavalent Chromium	mg/L as Cr <sup>6+</sup>	Filtration, Colorimetric Method (SM:3500 -Cr B)	< 0.050	≤ 6.0
Lead	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.010	≤ 4.0
Manganese	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.04	≤ 33
Mercury	mg/L	Cold-Vapor Atomic Absorption Spectrometric Method (SM:3112B)	< 0.0010	≤ 0.7

Physical Appearance : 1. Sample : lightly SS  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
4. Sampling At UTM 47 P 730841 E 1404704 N

SUPPLEMENT TO TEST REPORT NO. 6606-1595

Examined By   
( Miss Apiradee Chuen-arom )

(ว-003-ค-4377)

02 / 01 / 2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By   
( Miss Nunnaphat Bakhuntod )

(ว-003-ค-2205)

02 / 01 / 2024

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Request No. W6606014

Report No. 6606-1595-1

## TEST REPORT

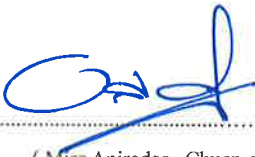
Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060084  
Sample Name : บริเวณแนวท่อใต้ดิน Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 10:50 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Nickel	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.03	≤ 5.0
Selenium	mg/L	Digestion, Hydride Generation/AAS Method (SM:3030F, 3114B&C)	< 0.0020	≤ 12
Vanadium	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.02	≤ 17

Physical Apperance : 1. Sample : lightly SS  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]


Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. Sampling By Mr. Parkpoom Buasawad (ว-003-ก-7280)  
4. Sampling At UTM 47 P 730841 E 1404704 N

SUPPLEMENT TO TEST REPORT NO. 6606-1595

Examined By   
( Miss Apiradee Chuen-arom )  
(ว-003-ก-4377)  
02 / 01 / 2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By   
( Miss Nunnaphat Bakhuntod )  
(ว-003-ก-2205)  
02 / 01 / 2024

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Request No. W6606014

Report No. 6606-1595-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060084  
Sample Name : บริเวณแนวท่อใต้ดิน Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 10:50 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Zinc	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.55	≤ 10

Physical Apperance : 1. Sample : lightly SS  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
4. Sampling At UTM 47 P 730841 E 1404704 N

SUPPLEMENT TO TEST REPORT NO. 6606-1595

Examined By.....

( Miss Apiradee Chuen-arom )

(ว-003-ค-4377)

02 / 01 / 2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

( Miss Nunnaphat Bakhuntod )

(ว-003-ค-2205)

02 / 01 / 2024

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Request No. W6606014

Report No. 6606-1595-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060084  
Sample Name : บริเวณแนวท่อใต้ดิน Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 10:50 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1</sup>
pH (on site)		Electrometric Method	5.7	6.5-9.2 ***

Physical Apperance : 1. Sample : lightly SS  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. \*\*\* ค่า pH จากจุดเก็บตัวอย่างบ่อท้ายน้ำกับจุดเก็บตัวอย่างบ่อน้ำที่เปลี่ยนแปลงจะต้องไม่เกินหนึ่งระดับ และ  
ไม่อยู่นอกช่วงค่าเกณฑ์อนุโลมสูงสุดของมาตรฐาน คุณภาพน้ำบาดาลที่ใช้บริโภค  
3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
4. Sampling At UTM 47 P 730841 E 1404704 N

## SUPPLEMENT TO TEST REPORT NO. 6606-1595

Examined By 

( Miss Apiradee Chuen-arom )

(ว-003-ค-4377)

02 / 01 / 2024



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Approved By 

( Miss Nunnaphat Bakhuntod )

(ว-003-ค-2205)

02 / 01 / 2024

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Request No. W6606014

Report No. 6606-1595-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060084  
Sample Name : บริเวณแนวท่อใต้ดิน Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 10:50 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1)</sup>
Boron	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.07	-
Cobalt	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.02	-
Copper	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.03	-
Iron	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.11	-
Titanium	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.02	-

Physical Apperance : 1. Sample : lightly SS  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Parameter Outside The Scope of The Registration of Department of Industrial Works  
3. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
4. Sampling By Mr. Parkpoom Buasawad (๖-003-๓-7280)  
5. Sampling At UTM 47 P 730841 E 1404704 N

SUPPLEMENT TO TEST REPORT NO. 6606-1595



Examined By.....  
( Miss Apiradee Chuen-arom )

02 / 01 / 2024

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Request No. W6606014

Report No. 6606-1595-1

## TEST REPORT


Customer : PTT Global Chemical Public Company Limited Branch 16  
 Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road,  
 Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 Sampling Source : EOEG Plant Sample No. : W 66060084  
 Sample Name : บริเวณแนวท่อใต้ดิน Sampling Date : 31/05/2023  
 Sampling By : ETC Sampling Time : 10:50 AM  
 Sampling Method : Grab Received Date : 01/06/2023  
 Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Results	Standard <sup>1/</sup>
<b>Volatile Organic Compounds</b>				
- Benzene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.2
- Carbon tetrachloride	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.4
- 1,2-Dichloroethane	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.5
- 1,1-Dichloroethylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.1
- cis-1,2-Dichloroethylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 2.0
- trans-1,2-Dichloroethylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 5.0
- Ethylbenzene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 2.0
- Styrene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 24
- Tetrachloroethylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.9
- Toluene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 5.0
- 1,2,4 - Trichlorobenzene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 24
- 1,1,1-Trichloroethane	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.2

Physical Appearance : 1. Sample : lightly SS  
 2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]

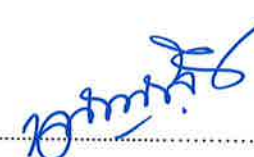
Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
 2. Sampling By Mr. Parkpoom Buasawad (๖-003-๓-7280)  
 3. Sampling At UTM 47 P 730841 E 1404704 N

SUPPLEMENT TO TEST REPORT NO. 6606-1595

Examined By   
 ( Miss Apiradee Chuen-arom )  
 (๖-003-๓-4377)  
 02/01/2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By   
 ( Miss Nunnaphat Bakhuntod )  
 ( ๖-003-๓-2205 )  
 02/01/2024

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Request No. W6606014

Report No. 6606-1595-1

## TEST REPORT


Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road,  
Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060084  
Sample Name : บริเวณแนวท่อใต้ดิน Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 10:50 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Results	Standard <sup>1)</sup>
<b>Volatile Organic Compounds</b>				
- 1,1,2-Trichloroethane	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.8
- Trichloroethylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 4.4
- Vinyl Chloride	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 0.03
- p,m-Xylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 24
- o-Xylene	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 24
- Xylene Total	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 24
- Methylene chloride	mg/L	Purge-and-Trap/GC-MS	Not Detected	≤ 6.0

Physical Appearance : 1. Sample : lightly SS  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]


Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Mr. Parkpoom Buasawad (ว-003-ก-7280)  
3. Sampling At UTM 47 P 730841 E 1404704 N

SUPPLEMENT TO TEST REPORT NO. 6606-1595

Examined By   
( Miss Apiradee Chuen-arom )  
( ว-003-ก-4377 )  
02/01/2024



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Approved By   
( Miss Nunnaphat Bakhuntod )  
( ว-003-ก-2205 )  
02/01/2024

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Request No. W6606014

Report No. 6606-1595-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road,  
Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060084  
Sample Name : บริเวณแนวท่อใต้ดิน Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 10:50 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 23/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1</sup>
<b>Total Petroleum Hydrocarbons ***</b>				
- TPH (C <sub>&gt;8</sub> -C <sub>16</sub> )	mg/L	3510 C /8015 D	ND	≤ 1.7
- n-Nonane				
- n-Decane				
- n-Dodecane				
- n-Tetradecane				
- n-Hexadecane				

Physical Apperance : 1. Sample : lightly SS  
2. Container : Normal [ PE 0.5 L [ 3 Bottle], G 1.0 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Eastern Thai Consulting 1992 Co., Ltd , (Mr. Parkpoom Buasawad (๖-003-๓-7280))  
3. \*\*\* Tested by SECOT Co.,Ltd. (๖-239)  
4. MDL = Method Detection Limit [ MDL of TPH (C<sub>>8</sub>-C<sub>16</sub>) = < 0.025 mg/L ]  
5. ND = non-detectable / Sampling At UTM 47 P 730841 E 1404704 N

SUPPLEMENT TO TEST REPORT NO. 6606-1595



Examined By



( Miss Apiradee Chuen-arom )

02 / 01 / 2024

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Request No. W6606016

Report No. 6606-1996-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060088  
Sample Name : ริมรั้วด้านทิศเหนือโครงการ(บ่อเหนือน้ำ)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 9:10 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 27/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1)</sup>
Arsenic (As)	mg/kg	Digestion, Inductively Coupled Plasma	< 5.00	≤ 27
Beryllium (Be)	mg/kg	Digestion, Inductively Coupled Plasma	< 1.00	≤ 13
Cadmium (Cd)	mg/kg	Digestion, Inductively Coupled Plasma	0.16	≤ 810
Chromium (Cr)	mg/kg	Digestion, Inductively Coupled Plasma	7.22	≤ 640
Hexavalent Chromium	mg/kg	Alkaline Digestion, Colorimetric Method	< 2.00	≤ 640
Lead (Pb)	mg/kg	Digestion, Inductively Coupled Plasma	7.25	≤ 750
Manganese (Mn)	mg/kg	Digestion, Inductively Coupled Plasma	111	≤ 32,000
Mercury (Hg)	mg/kg	Digestion, Cold-Vapor Atomic Absorption Spectrometric	< 0.20	≤ 610
Nickel (Ni)	mg/kg	Digestion, Inductively Coupled Plasma	1.86	≤ 41,000
Selenium (Se)	mg/kg	Digestion, Inductively Coupled Plasma	< 5.00	≤ 10,000
Vanadium (V)	mg/kg	Digestion, Inductively Coupled Plasma	8.11	≤ 1,000
Zinc (Zn)	mg/kg	Digestion, Inductively Coupled Plasma	31.6	≤ 1,000

Physical Appearance : 1. Sample : brown, soil  
2. Container : Normal [ G 0.5 L]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
3. Sampling At UTM 47 P 731078 E 1405208 N  
4.## ริมรั้วด้านทิศเหนือโครงการ (บ่อเหนือน้ำ (Up-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1996

Examined By



(Miss Apiradee Chuen-arom)

(ว-003-ค-4377)

02 / 01 / 2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By



(Miss Nunnaphat Bakhuntod)

(ว-003-ค-2205)

02 / 01 / 2024

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Request No. W6606016

Report No. 6606-1996-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : รีมรื้อด้านทิศเหนือโครงการ(บ่อเหนือหน้า)##  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 01/06/2023 – 27/06/2023  
Sample No. : W 66060088  
Sampling Date : 31/05/2023  
Sampling Time : 9:10 AM  
Received Date : 01/06/2023  
Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1)</sup>
Boron (B)	mg/kg	Digestion, Inductively Coupled Plasma	5.78	-
Cobalt (Co)	mg/kg	Digestion, Inductively Coupled Plasma	< 1.00	-
Copper (Cu)	mg/kg	Digestion, Inductively Coupled Plasma	1.24	-
Iron (Fe)	mg/kg	Digestion, Inductively Coupled Plasma	3,353	-
Titanium (Ti)	mg/kg	Digestion, Inductively Coupled Plasma	10.5	-

Physical Apperance : 1. Sample : brown, soil  
2. Container : Normal [ G 0.5 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Parameter Outside The Scope of The Registration of Department of Industrial Works  
3. Sampling By Mr. Parkpoom Buasawad (ว-003-ก-7280)  
4. Sampling At UTM 47 P 731078 E 1405208 N  
5.## รีมรื้อด้านทิศเหนือโครงการ (บ่อเหนือหน้า (Up-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1996



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

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Examined By.....

( Miss Apiradee Chuen-arom )

02/01/2024

Request No. W6606016

Report No. 6606-1996-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060088  
Sample Name : รีมรื้อด้านทิศเหนือโครงการ(บ่อเหนือหน้า)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 9:10 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 27/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1/</sup>
pH		Electrometric Method	7.8	-

Physical Apperance : 1. Sample : brown, soil  
2. Container : Normal [ G 0.5 L]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Parameter Outside The Scope of The Registration of Department of Industrial Works  
3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
4. Sampling At UTM 47 P 731078 E 1405208 N  
5.## รีมรื้อด้านทิศเหนือโครงการ (บ่อเหนือหน้า (Up-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1996



Examined By.....

( Miss Apiradee Chuen-arom)

02/01/2024

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Request No. W6606016

Report No. 6606-1996-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16

Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150

Sampling Source : EOEG Plant Sample No. : W 66060088

Sample Name : ริมรั้วด้านทิศเหนือโครงการ(บ่อเหนือ)## Sampling Date : 31/05/2023

Sampling By : ETC Sampling Time : 9:10 AM

Sampling Method : Grab Received Date : 01/06/2023

Tested Date : 01/06/2023 – 27/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Results	Standard <sup>1)</sup>
<b>Volatile Organic Compounds</b>				
- Benzene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 15
- Carbon tetrachloride	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 5.3
- 1,2-Dichloroethane	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 7.6
- 1,1-Dichloroethylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 1.2
- cis-1,2-Dichloroethylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 150
- trans-1,2-Dichloroethylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 210
- Ethylbenzene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 230
- Methylene Chloride	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 210
- Styrene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 1,700
- Tetrachloroethylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 190
- Toluene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 520
- 1,2,4 - Trichlorobenzene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 1,000
- 1,1,1-Trichloroethane	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 1,400

Physical Apperance : 1. Sample : brown, soil  
2. Container : Normal [ G 0.5 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Mr. Parkpoom Buasawad (จ-003-ค-7280)  
3. ## ริมรั้วด้านทิศเหนือโครงการ (บ่อเหนือ) (Up-gradient) / Sampling At UTM 47 P 731078 E 1405208 N

SUPPLEMENT TO TEST REPORT NO. 6606-1996

Examined By.....  
( Miss Apiradee Chuen-arom )  
(จ-003-ค-4377)  
02 / 01 / 2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....  
( Miss Nunnaphat Bakhuntod )  
(จ-003-ค-2205)  
02 / 01 / 2024

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. W6606016

Report No. 6606-1996-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
 Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 Sampling Source : EOEG Plant Sample No. : W 66060088  
 Sample Name : ริมรั้วด้านทิศเหนือโครงการ(บ่อเหนือหน้า)## Sampling Date : 31/05/2023  
 Sampling By : ETC Sampling Time : 9:10 AM  
 Sampling Method : Grab Received Date : 01/06/2023  
 Tested Date : 01/06/2023 – 27/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Results	Standard <sup>1</sup>
<b>Volatile Organic Compounds</b>				
- 1,1,2-Trichloroethane	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 19
- Trichloroethylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 61
- Vinyl Chloride	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 8.3
- m,p-Xylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 210
- o-Xylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 210
- Xylene Total	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 210

Physical Apperance : 1. Sample : brown, soil  
 2. Container : Normal [ G 0.5 L ]  
 Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
 2. Sampling By Mr. Parkpoom Buasawad (จ-003-ค-7280)  
 3. ## ริมรั้วด้านทิศเหนือโครงการ (บ่อเหนือหน้า (Up-gradient)) / Sampling At UTM 47 P 731078 E 1405208 N

Examined By.....  
 ( Miss Apiradee Chuen-arom )  
 (จ-003-ค-4377)  
 02 / 01 / 2024

SUPPLEMENT TO TEST REPORT NO. 6606-1996



Approved By.....  
 ( Miss Nunnaphat Bakhuntod )  
 (จ-003-ค-2205)  
 02 / 01 / 2024

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Request No. W6606016

Report No. 6606-1996-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16

Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150

Sampling Source : EOEG Plant Sample No. : W 66060088

Sample Name : ริมรั้วด้านทิศเหนือโครงการ(บ่อเหนือ)## Sampling Date : 31/05/2023

Sampling By : ETC Sampling Time : 9:10 AM

Sampling Method : Grab Received Date : 01/06/2023

Tested Date : 01/06/2023 – 27/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1/</sup>
<b>Total Petroleum Hydrocarbons ***</b>				
- TPH (C <sub>8</sub> -C <sub>16</sub> )	mg/kg	3540 C /8015 D	1.82	≤ 25
- n-Nonane				
- n-Decane				
- n-Dodecane				
- n-Tetradecane				
- n-Hexadecane				

Physical Apperance : 1. Sample : brown, soil  
2. Container : Normal [ G 0.5 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Eastern Thai Consulting 1992 Co., Ltd., (Mr. Parkpoom Buasawad (ว-003-ค-7280))  
3. \*\*\* Tested by SECOT Co.,Ltd. (ว-239)  
4. Sampling At UTM 47 P 731078 E 1405208 N  
5. ## ริมรั้วด้านทิศเหนือโครงการ (บ่อเหนือ) (Up-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1996



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



( Miss Apiradee Chuen-arom )

02 / 01 / 2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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Request No. W6606016

Report No. 6606-1997-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060089  
Sample Name : ริมร้วด้านทิศตะวันตกโครงการ(บ่อท้ายน้ำ)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 11:05 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 27/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1)</sup>
Arsenic (As)	mg/kg	Digestion, Inductively Coupled Plasma	< 5.00	≤ 27
Beryllium (Be)	mg/kg	Digestion, Inductively Coupled Plasma	< 1.00	≤ 13
Cadmium (Cd)	mg/kg	Digestion, Inductively Coupled Plasma	0.30	≤ 810
Chromium (Cr)	mg/kg	Digestion, Inductively Coupled Plasma	8.51	≤ 640
Hexavalent Chromium	mg/kg	Alkaline Digestion, Colorimetric Method	< 2.00	≤ 640
Lead (Pb)	mg/kg	Digestion, Inductively Coupled Plasma	11.3	≤ 750
Manganese (Mn)	mg/kg	Digestion, Inductively Coupled Plasma	227	≤ 32,000
Mercury (Hg)	mg/kg	Digestion, Cold-Vapor Atomic Absorption Spectrometric	< 0.20	≤ 610
Nickel (Ni)	mg/kg	Digestion, Inductively Coupled Plasma	2.16	≤ 41,000
Selenium (Se)	mg/kg	Digestion, Inductively Coupled Plasma	< 5.00	≤ 10,000
Vanadium (V)	mg/kg	Digestion, Inductively Coupled Plasma	11.0	≤ 1,000
Zinc (Zn)	mg/kg	Digestion, Inductively Coupled Plasma	51.3	≤ 1,000

Physical Apperance : 1. Sample : brown, soil  
2. Container : Normal [ G 0.5 L]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
3. Sampling At UTM 47 P 730370 E 1404509 N  
4.## ริมร้วด้านทิศตะวันตกโครงการ (บ่อท้ายน้ำ (Down-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1997

Examined By.....  
( Miss Apiradee Chuen-arom )  
(ว-003-ค-4377)  
02 / 01 / 2024



บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Approved By.....  
( Miss Nunnaphat Bakhuntod )  
(ว-003-ค-2205)  
02 / 01 / 2024

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Request No. W6606016

Report No. 6606-1997-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : ริมรั้วด้านทิศตะวันตกโครงการ(บ่อท้ายน้ำ)##  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 01/06/2023 – 27/06/2023  
Sample No. : W 66060089  
Sampling Date : 31/05/2023  
Sampling Time : 11:05 AM  
Received Date : 01/06/2023  
Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1)</sup>
Boron (B)	mg/kg	Digestion, Inductively Coupled Plasma	9.17	-
Cobalt (Co)	mg/kg	Digestion, Inductively Coupled Plasma	< 1.00	-
Copper (Cu)	mg/kg	Digestion, Inductively Coupled Plasma	1.09	-
Iron (Fe)	mg/kg	Digestion, Inductively Coupled Plasma	6,015	-
Titanium (Ti)	mg/kg	Digestion, Inductively Coupled Plasma	14.8	-


Physical Apperance : 1. Sample : brown, soil  
2. Container : Normal [ G 0.5 L]

Remark : 1./1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Parameter Outside The Scope of The Registration of Department of Industrial Works  
3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
4. Sampling At UTM 47 P 730370 E 1404509 N  
5.## ริมรั้วด้านทิศตะวันตกโครงการ (บ่อท้ายน้ำ (Down-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1997



Examined By



( Miss Apiradee Chuen-arom)

02/01/2024

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No. W6606016

Report No. 6606-1997-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060089  
Sample Name : รีมรื้อด้านทิศตะวันตกโครงการ(บ่อทำynnน้ำ)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 11:05 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 27/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1</sup>
pH		Electrometric Method	7.2	-

Physical Apperance : 1. Sample : brown, soil  
2. Container : Normal [ G 0.5 L]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Parameter Outside The Scope of The Registration of Department of Industrial Works  
3. Sampling By Mr. Parkpoom Buasawad (1-003-ค-7280)  
4. Sampling At UTM 47 P 730370 E 1404509 N  
5. ## รีมรื้อด้านทิศตะวันตกโครงการ (บ่อทำynnน้ำ (Down-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1997



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY

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Examined By.....

( Miss Apiradee Chuen-arom)

02/01/2024

Request No. W6606016

Report No. 6606-1997-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060089  
Sample Name : ริมรั้วด้านทิศตะวันตกโครงการ(บ่อท้ายน้ำ)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 11:05 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 27/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Results	Standard <sup>1</sup>
<b>Volatile Organic Compounds</b>				
- Benzene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 15
- Carbon tetrachloride	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 5.3
- 1,2-Dichloroethane	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 7.6
- 1,1-Dichloroethylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 1.2
- cis-1,2-Dichloroethylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 150
- trans-1,2-Dichloroethylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 210
- Ethylbenzene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 230
- Methylene Chloride	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 210
- Styrene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 1,700
- Tetrachloroethylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 190
- Toluene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 520
- 1,2,4 - Trichlorobenzene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 1,000
- 1,1,1-Trichloroethane	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 1,400

Physical Apperance : 1. Sample : brown, soil  
2. Container : Normal [ G 0.5 L ]

Remark : 1./1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
3.## ริมรั้วด้านทิศตะวันตกโครงการ (บ่อท้ายน้ำ (Down-gradient)) /Sampling At UTM 47 P 730370 E 1404509 N

SUPPLEMENT TO TEST REPORT NO. 6606-1997

Examined By.....  
( Miss Apiradee Chuen-arom )  
(ว-003-ค-4377)  
02 / 01 / 2024



Approved By.....  
( Miss Nunnaphat Bakhuntod )  
(ว-003-ค-2205)  
02 / 01 / 2024

REPORTED FOR USE OF REFERENCE ONLY

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Request No. W6606016

Report No. 6606-1997-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
 Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 Sampling Source : EOEG Plant Sample No. : W 66060089  
 Sample Name : ริมรั้วด้านทิศตะวันตกโครงการ(บ่อท้ายน้ำ)## Sampling Date : 31/05/2023  
 Sampling By : ETC Sampling Time : 11:05 AM  
 Sampling Method : Grab Received Date : 01/06/2023  
 Tested Date : 01/06/2023 – 27/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Results	Standard <sup>1)</sup>
<b>Volatile Organic Compounds</b>				
- 1,1,2-Trichloroethane	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 19
- Trichloroethylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 61
- Vinyl Chloride	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 8.3
- m,p-Xylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 210
- o-Xylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 210
- Xylene Total	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 210

Physical Apperance : 1. Sample : brown, soil  
 2. Container : Normal [ G 0.5 L ]  
 Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
 2. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
 3.## ริมรั้วด้านทิศตะวันตกโครงการ (บ่อท้ายน้ำ (Down-gradient)) /Sampling At UTM 47 P 730370 E 1404509 N

## SUPPLEMENT TO TEST REPORT NO. 6606-1997

Examined By.....

(Miss Apiradee Chuen-arom)

(ว-003-ค-4377)

02 / 01 / 2024



Approved By.....

(Miss Nunnaphat Bakhuntod )

(ว-003-ค-2205)

02 / 01 / 2024

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Request No. W6606016

Report No. 6606-1997-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060089  
Sample Name : ริมรั้วด้านทิศตะวันตกโครงการ(บ่อท้ายน้ำ)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 11:05 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 27/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>/1</sup>
<b>Total Petroleum Hydrocarbons ***</b>				
- TPH (C <sub>&gt;8</sub> -C <sub>16</sub> )	mg/kg	3540 C /8015 D	ND	≤ 25
- n-Nonane				
- n-Decane				
- n-Dodecane				
- n-Tetradecane				
- n-Hexadecane				

Physical Apperance : 1. Sample : brown, soil  
2. Container : Normal [ G 0.5 L ]  
Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Eastern Thai Consulting 1992 Co., Ltd., (Mr. Parkpoom Buasawad (ว-003-ค-7280))  
3. \*\*\* Tested by SECOT Co.,Ltd. (ว-239)  
4. MDL = Method Detection Limit [ MDL of TPH (C<sub>>8</sub>-C<sub>16</sub>) = < 0.25 mg/kg ]  
5. ND = Non-detectable / Sampling At UTM 47 P 730370 E 1404509 N  
6. ## ริมรั้วด้านทิศตะวันตกโครงการ (บ่อท้ายน้ำ (Down-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1997



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By .....



( Miss Apiradee Chuen-arom )

02 / 01 / 2024

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Request No. W6606016

Report No. 6606-1998-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16

Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150

Sampling Source : EOEG Plant Sample No. : W 66060090

Sample Name : ริมรั้วด้านทิศใต้โครงการ(บ่อกลางน้ำ)## Sampling Date : 31/05/2023

Sampling By : ETC Sampling Time : 10:20 AM

Sampling Method : Grab Received Date : 01/06/2023

Tested Date : 01/06/2023 – 27/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Arsenic (As)	mg/kg	Digestion, Inductively Coupled Plasma	< 5.00	≤ 27
Beryllium (Be)	mg/kg	Digestion, Inductively Coupled Plasma	< 1.00	≤ 13
Cadmium (Cd)	mg/kg	Digestion, Inductively Coupled Plasma	< 0.15	≤ 810
Chromium (Cr)	mg/kg	Digestion, Inductively Coupled Plasma	2.25	≤ 640
Hexavalent Chromium	mg/kg	Alkaline Digestion, Colorimetric Method	< 2.00	≤ 640
Lead (Pb)	mg/kg	Digestion, Inductively Coupled Plasma	6.32	≤ 750
Manganese (Mn)	mg/kg	Digestion, Inductively Coupled Plasma	211	≤ 32,000
Mercury (Hg)	mg/kg	Digestion, Cold-Vapor Atomic Absorption Spectrometric	< 0.20	≤ 610
Nickel (Ni)	mg/kg	Digestion, Inductively Coupled Plasma	< 1.00	≤ 41,000
Selenium (Se)	mg/kg	Digestion, Inductively Coupled Plasma	< 5.00	≤ 10,000
Vanadium (V)	mg/kg	Digestion, Inductively Coupled Plasma	3.67	≤ 1,000
Zinc (Zn)	mg/kg	Digestion, Inductively Coupled Plasma	11.6	≤ 1,000

Physical Appearance : 1. Sample : brown, soil  
2. Container : Normal [ G 0.5 L ]

Remark : 1. /I Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Mr. Parkpoom Buasawad (ว-003-ก-7280)  
3. Sampling At UTM 47 P 730789 E 1404730 N  
4. ## ริมรั้วด้านทิศใต้โครงการ (บ่อกลางน้ำ (Middle-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1998

Examined By



( Miss Apiradee Chuen-arom )

( ว-003-ก-4377 )

02 / 01 / 2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By



( Miss Nunnaphat Bakhuntod )

( ว-003-ก-2205 )

02 / 01 / 2024

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY

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Request No. W6606016

Report No. 6606-1998-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060090  
Sample Name : ริมร้วด้านทิศใต้โครงการ(บ่อกกลางน้ำ)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 10:20 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 27/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Boron (B)	mg/kg	Digestion,Inductively Coupled Plasma	4.28	-
Cobalt (Co)	mg/kg	Digestion,Inductively Coupled Plasma	< 1.00	-
Copper (Cu)	mg/kg	Digestion,Inductively Coupled Plasma	< 1.00	-
Iron (Fe)	mg/kg	Digestion,Inductively Coupled Plasma	2,067	-
Titanium (Ti)	mg/kg	Digestion,Inductively Coupled Plasma	19.7	-

Physical Apperance : 1. Sample : brown, soil  
2. Container : Normal [ G 0.5 L]

Remark : 1./1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Parameter Outside The Scope of The Registration of Department of Industrial Works  
3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
4. Sampling At UTM 47 P 730789 E 1404730 N  
5.## ริมร้วด้านทิศใต้โครงการ (บ่อกกลางน้ำ (Middle-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1998



Examined By.....

( Miss Apiradee Chuen-arom)

02/01/2024

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. W6606016

Report No. 6606-1998-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060090  
Sample Name : ริมร้วด้านทิศใต้โครงการ(บ่อกกลางน้ำ)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 10:20 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 27/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1)</sup>
pH		Electrometric Method	5.8	-

Physical Apperance : 1. Sample : brown, soil

2. Container : Normal [ G 0.5 L]

Remark : 1./1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Parameter Outside The Scope of The Registration of Department of Industrial Works  
3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
4. Sampling At UTM 47 P 730789 E 1404730 N  
5.## ริมร้วด้านทิศใต้โครงการ (บ่อกกลางน้ำ (Middle-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1998



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



( Miss Apiradee Chuen-arom)

02/01/2024

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Request No. W6606016

Report No. 6606-1998-1

## TEST REPORT


Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060090  
Sample Name : ริมรั้วด้านทิศใต้โครงการ(บ่อกกลางน้ำ)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 10:20 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 27/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Results	Standard <sup>1)</sup>
<b>Volatile Organic Compounds</b>				
- Benzene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 15
- Carbon tetrachloride	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 5.3
- 1,2-Dichloroethane	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 7.6
- 1,1-Dichloroethylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 1.2
- cis-1,2-Dichloroethylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 150
- trans-1,2-Dichloroethylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 210
- Ethylbenzene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 230
- Methylene Chloride	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 210
- Styrene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 1,700
- Tetrachloroethylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 190
- Toluene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 520
- 1,2,4 - Trichlorobenzene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 1,000
- 1,1,1-Trichloroethane	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 1,400


Physical Apperance : 1. Sample : brown, soil  
2. Container : Normal [ G 0.5 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
3.## ริมรั้วด้านทิศใต้โครงการ (บ่อกกลางน้ำ (Middle-gradient)) /Sampling At UTM 47 P 730789 E 1404730 N

SUPPLEMENT TO TEST REPORT NO. 6606-1998

Examined By   
( Miss Apiradee Chuen-arom )  
(ว-003-ค-4377)  
02 / 01 / 2024



Approved By   
( Miss Nunnaphat Bakhuntod )  
(ว-003-ค-2205)  
02 / 01 / 2024

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Request No. W6606016

Report No. 6606-1998-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060090  
Sample Name : ริมรั้วด้านทิศใต้โครงการ(บ่อกลางน้ำ)## Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 10:20 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 27/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Results	Standard <sup>1)</sup>
<b>Volatile Organic Compounds</b>				
- 1,1,2-Trichloroethane	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 19
- Trichloroethylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 61
- Vinyl Chloride	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 8.3
- m,p-Xylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 210
- o-Xylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 210
- Xylene Total	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 210

Physical Apperance : 1. Sample : brown, soil  
2. Container : Normal [ G 0.5 L ]  
Remark : 1./1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Mr. Parkpoom Buasawad (จ-003-ค-7280)  
3.## ริมรั้วด้านทิศใต้โครงการ (บ่อกลางน้ำ (Middle-gradient)) /Sampling At UTM 47 P 730789 E 1404730 N

## SUPPLEMENT TO TEST REPORT NO. 6606-1998

Examined By.....

( Miss Apiradee Chuen-arom )

(จ-003-ค-4377)

02 / 01 / 2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By .....

( Miss Nunnaphat Bakhuntod )

(จ-003-ค-2205)

02 / 01 / 2024

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Request No. W6606016

Report No. 6606-1998-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16

Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150

Sampling Source : EOEG Plant Sample No. : W 66060090

Sample Name : ริมรั้วด้านทิศใต้โครงการ(บ่อกลางน้ำ)## Sampling Date : 31/05/2023

Sampling By : ETC Sampling Time : 10:20 AM

Sampling Method : Grab Received Date : 01/06/2023

Tested Date : 01/06/2023 – 27/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1</sup>
<b>Total Petroleum Hydrocarbons ***</b>				
- TPH (C <sub>&gt;8</sub> -C <sub>16</sub> )	mg/kg	3540 C /8015 D	1.93	≤ 25
- n-Nonane				
- n-Decane				
- n-Dodecane				
- n-Tetradecane				
- n-Hexadecane				

Physical Apperance : 1. Sample : brown, soil  
2. Container : Normal [ G 0.5 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Eastern Thai Consulting 1992 Co., Ltd., (Mr. Parkpoom Buasawad (ว-003-ค-7280))  
3. \*\*\* Tested by SECOT Co.,Ltd. (ว-239)  
4. Sampling At UTM 47 P 730789 E 1404730 N  
5. ## ริมรั้วด้านทิศใต้โครงการ (บ่อกลางน้ำ (Middle-gradient))

SUPPLEMENT TO TEST REPORT NO. 6606-1998



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By .....

( Miss Apiradee Chuen-arom )

02 / 01 / 2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

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Request No. W6606016

Report No. 6606-1999-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060091  
Sample Name : บริเวณแนวท่อใต้ดิน Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 10:50 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 27/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1/</sup>
Arsenic (As)	mg/kg	Digestion, Inductively Coupled Plasma	14.8	≤ 27
Beryllium (Be)	mg/kg	Digestion, Inductively Coupled Plasma	< 1.00	≤ 13
Cadmium (Cd)	mg/kg	Digestion, Inductively Coupled Plasma	0.74	≤ 810
Chromium (Cr)	mg/kg	Digestion, Inductively Coupled Plasma	16.8	≤ 640
Hexavalent Chromium	mg/kg	Alkaline Digestion, Colorimetric Method	< 2.00	≤ 640
Lead (Pb)	mg/kg	Digestion, Inductively Coupled Plasma	6.78	≤ 750
Manganese (Mn)	mg/kg	Digestion, Inductively Coupled Plasma	48.7	≤ 32,000
Mercury (Hg)	mg/kg	Digestion, Cold-Vapor Atomic Absorption Spectrometric	< 0.20	≤ 610
Nickel (Ni)	mg/kg	Digestion, Inductively Coupled Plasma	2.89	≤ 41,000
Selenium (Se)	mg/kg	Digestion, Inductively Coupled Plasma	< 5.00	≤ 10,000
Vanadium (V)	mg/kg	Digestion, Inductively Coupled Plasma	36.4	≤ 1,000
Zinc (Zn)	mg/kg	Digestion, Inductively Coupled Plasma	8.01	≤ 1,000

Physical Appearance : 1. Sample : brown, soil  
2. Container : Normal [ G 0.5 L]

Remark : 1./1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Mr. Parkpoom Buasawad (ว-003-ก-7280)  
3. Sampling At UTM 47 P 730841 E 1404704 N

SUPPLEMENT TO TEST REPORT NO. 6606-1999

Examined By.....  
( Miss Apiradee Chuen-arom )  
(ว-003-ก-4377)  
02 / 01 / 2024



Approved By.....  
( Miss Nunnaphat Bakhuntod )  
(ว-003-ก-2205)  
02 / 01 / 2024

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Request No. W6606016

Report No. 6606-1999-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : บริเวณแนวท่อใต้ดิน  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 01/06/2023 – 27/06/2023  
Sample No. : W 66060091  
Sampling Date : 31/05/2023  
Sampling Time : 10:50 AM  
Received Date : 01/06/2023  
Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Boron (B)	mg/kg	Digestion, Inductively Coupled Plasma	28.8	-
Cobalt (Co)	mg/kg	Digestion, Inductively Coupled Plasma	< 1.00	-
Copper (Cu)	mg/kg	Digestion, Inductively Coupled Plasma	< 1.00	-
Iron (Fe)	mg/kg	Digestion, Inductively Coupled Plasma	16,092	-
Titanium (Ti)	mg/kg	Digestion, Inductively Coupled Plasma	19.4	-

Physical Apperance : 1. Sample : brown, soil  
2. Container : Normal [ G 0.5 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Parameter Outside The Scope of The Registration of Department of Industrial Works  
3. Sampling By Mr. Parkpoom Buasawad (๖-003-๓-7280)  
4. Sampling At UTM 47 P 730841 E 1404704 N

SUPPLEMENT TO TEST REPORT NO. 6606-1999



Examined By

( Miss Apiradee Chuen-arom )

02/01/2024

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด  
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Request No. W6606016

Report No. 6606-1999-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : บริเวณแนวท่อใต้ดิน  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 01/06/2023 – 27/06/2023  
Sample No. : W 66060091  
Sampling Date : 31/05/2023  
Sampling Time : 10:50 AM  
Received Date : 01/06/2023  
Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1)</sup>
pH		Electrometric Method	5.9	-

Physical Apperance : 1. Sample : brown, soil  
2. Container : Normal [ G 0.5 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Parameter Outside The Scope of The Registration of Department of Industrial Works  
3. Sampling By Mr. Parkpoom Buasawad (๖-003-๓-7280)  
4. Sampling At UTM 47 P 730841 E 1404704 N

SUPPLEMENT TO TEST REPORT NO. 6606-1999



Examined By.....



( Miss Apiradee Chuen-arom )

02/01/2024

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Request No. W6606016

Report No. 6606-1999-1

## TEST REPORT


Customer : PTT Global Chemical Public Company Limited Branch 16  
 Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 Sampling Source : EOEG Plant Sample No. : W 66060091  
 Sample Name : บริเวณแนวท่อใต้ดิน Sampling Date : 31/05/2023  
 Sampling By : ETC Sampling Time : 10:50 AM  
 Sampling Method : Grab Received Date : 01/06/2023  
 Tested Date : 01/06/2023 – 27/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Results	Standard <sup>1/</sup>
<b>Volatile Organic Compounds</b>				
- Benzene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 15
- Carbon tetrachloride	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 5.3
- 1,2-Dichloroethane	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 7.6
- 1,1-Dichloroethylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 1.2
- cis-1,2-Dichloroethylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 150
- trans-1,2-Dichloroethylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 210
- Ethylbenzene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 230
- Methylene Chloride	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 210
- Styrene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 1,700
- Tetrachloroethylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 190
- Toluene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 520
- 1,2,4 - Trichlorobenzene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 1,000
- 1,1,1-Trichloroethane	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 1,400

Physical Apperance : 1. Sample : brown, soil  
 2. Container : Normal [ G 0.5 L ]


Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
 2. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
 3. Sampling At UTM 47 P 730841 E 1404704 N

SUPPLEMENT TO TEST REPORT NO. 6606-1999

Examined By   
 ( Miss Apiradee Chuen-arom )  
 (ว-003-ค-4377)  
 02 / 01 / 2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By   
 ( Miss Nunnaphat Bakhuntod )  
 (ว-003-ค-2205)  
 02 / 01 / 2024

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Request No. W6606016

Report No. 6606-1999-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant Sample No. : W 66060091  
Sample Name : บริเวณแนวท่อใต้ดิน Sampling Date : 31/05/2023  
Sampling By : ETC Sampling Time : 10:50 AM  
Sampling Method : Grab Received Date : 01/06/2023  
Tested Date : 01/06/2023 – 27/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Results	Standard <sup>1)</sup>
<b>Volatile Organic Compounds</b>				
- 1,1,2-Trichloroethane	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 19
- Trichloroethylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 61
- Vinyl Chloride	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 8.3
- m,p-Xylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 210
- o-Xylene	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 210
- Xylene Total	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 210

Physical Appearance : 1. Sample : brown, soil  
2. Container : Normal [ G 0.5 L ]  
Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
3. Sampling At UTM 47 P 730841 E 1404704 N

## SUPPLEMENT TO TEST REPORT NO. 6606-1999

Examined By.....  
(Miss Apiradee Chuen-arom)  
(ว-003-ค-4377)  
02 / 01 / 2024



Approved By.....  
(Miss Nunnaphat Bakhuntod )  
(ว-003-ค-2205)  
02 / 01 / 2024

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด  
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Request No. W6606016

Report No. 6606-1999-1

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 16

Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150

Sampling Source : EOEG Plant Sample No. : W 66060091

Sample Name : บริเวณแนวท่อใต้ดิน Sampling Date : 31/05/2023

Sampling By : ETC Sampling Time : 10:50 AM

Sampling Method : Grab Received Date : 01/06/2023

Tested Date : 01/06/2023 – 27/06/2023 Reported Date : 02/01/2024

Parameter	Unit	Method	Result	Standard <sup>1</sup>
<b>Total Petroleum Hydrocarbons ***</b>				
- TPH (C <sub>&gt;8</sub> -C <sub>16</sub> )	mg/kg	3540 C / 8015 D	ND	≤ 25
- n-Nonane				
- n-Decane				
- n-Dodecane				
- n-Tetradecane				
- n-Hexadecane				

Physical Apperance : 1. Sample : brown, soil  
2. Container : Normal [ G 0.5 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Eastern Thai Consulting 1992 Co., Ltd., (Mr. Parkpoom Buasawad (ว-003-ค-7280))  
3. \*\*\* Tested by SECOT Co.,Ltd. (ว-239)  
4. MDL = Method Detection Limit [ MDL of TPH (C<sub>>8</sub>-C<sub>16</sub>) = < 0.25 mg/kg ]  
5. ND = Non=etectable / Sampling At UTM 47 P 730841 E 1404704 N

SUPPLEMENT TO TEST REPORT NO. 6606-1999



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



( Miss Apiradee Chuen-arom )

02 / 01 / 2024

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Request No. LA66-R0919

Report No. R6609-0312

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
 ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 SAMPLE SOURCE : EOEG Plant  
 SAMPLE POINT : บริเวณริมรั้วด้านทิศเหนือ  
 PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{max}$ ,  $L_{90}$  &  $L_{dn}$   
 DETERMINATION METHOD : ISO 1996-1:2016  
 INSTRUMENT : Integrated Sound Level Meter S/N 00230994 : Class 1

SAMPLE NO. : 27163  
 MEASURING DATE : 28-29/08/2023  
 RECEIVED DATE : 04/09/2023  
 REPORTED DATE : 11/09/2023

TIME \ DATE	28-29/08/2023 ( $L_{eq}$ )	28-29/08/2023 ( $L_{max}$ )	28-29/08/2023 ( $L_{90}$ )	UNIT
11:00 - 12:00 <sup>/3</sup>	57.2	74.0	54.7	dB(A)
12:00 - 13:00	56.4	70.0	54.6	dB(A)
13:00 - 14:00	57.1	72.2	54.6	dB(A)
14:00 - 15:00	57.0	75.0	54.6	dB(A)
15:00 - 16:00	56.6	79.3	54.6	dB(A)
16:00 - 17:00	57.8	74.7	55.3	dB(A)
17:00 - 18:00	58.0	79.7	55.4	dB(A)
18:00 - 19:00	58.0	76.5	54.9	dB(A)
19:00 - 20:00	57.6	77.2	54.8	dB(A)
20:00 - 21:00	56.4	75.5	54.6	dB(A)
21:00 - 22:00	55.0	65.6	54.3	dB(A)
22:00 - 23:00	55.0	66.8	53.9	dB(A)
23:00 - 00:00	53.4	72.4	52.6	dB(A)
00:00 - 01:00	53.5	61.7	53.0	dB(A)
01:00 - 02:00	54.2	68.3	53.6	dB(A)
02:00 - 03:00	54.6	67.3	53.9	dB(A)
03:00 - 04:00	54.5	64.4	53.9	dB(A)
04:00 - 05:00	54.4	62.0	53.9	dB(A)
05:00 - 06:00	55.0	68.4	54.2	dB(A)
06:00 - 07:00	57.3	77.1	54.9	dB(A)
07:00 - 08:00	59.8	79.5	56.1	dB(A)
08:00 - 09:00	57.7	81.5	54.7	dB(A)
09:00 - 10:00	56.9	75.5	54.5	dB(A)
10:00 - 11:00	57.2	76.9	54.6	dB(A)
$L_{eq}$ 24 hr.	56.6	-	-	dB(A)
$L_{dn}$	61.7	-	-	dB(A)
Maximum	-	81.5	-	dB(A)
Standard	70 <sup>/1</sup> , 70 <sup>/2</sup>	115 <sup>/1</sup> , 115 <sup>/2</sup>	-	dB(A)

**REMARK :** <sup>/1</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)<sup>/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)<sup>/3</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Photankhum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

11/09/2023

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Request No. LA66-R0919

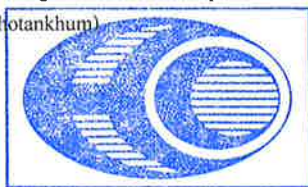
Report No. R6609-0313

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
 ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 SAMPLE SOURCE : EOEG Plant  
 SAMPLE POINT : บริเวณริมรั้วด้านทิศเหนือ  
 PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{max}$ ,  $L_{90}$  &  $L_{dn}$   
 DETERMINATION METHOD : ISO 1996-1:2016  
 INSTRUMENT : Integrated Sound Level Meter S/N 00230994 : Class I

SAMPLE NO. : 27164  
 MEASURING DATE : 29-30/08/2023  
 RECEIVED DATE : 04/09/2023  
 REPORTED DATE : 11/09/2023

TIME \ DATE	29-30/08/2023 ( $L_{eq}$ )	29-30/08/2023 ( $L_{max}$ )	29-30/08/2023 ( $L_{90}$ )	UNIT
11:00 - 12:00 <sup>1/3</sup>	57.4	75.5	54.6	dB(A)
12:00 - 13:00	55.9	73.2	54.2	dB(A)
13:00 - 14:00	56.9	76.4	54.6	dB(A)
14:00 - 15:00	56.6	73.1	54.6	dB(A)
15:00 - 16:00	56.4	69.0	54.6	dB(A)
16:00 - 17:00	57.8	76.0	54.7	dB(A)
17:00 - 18:00	57.4	75.5	54.6	dB(A)
18:00 - 19:00	57.2	74.9	54.2	dB(A)
19:00 - 20:00	57.1	76.0	54.1	dB(A)
20:00 - 21:00	55.3	71.2	53.8	dB(A)
21:00 - 22:00	55.0	69.6	53.9	dB(A)
22:00 - 23:00	54.8	64.8	53.9	dB(A)
23:00 - 00:00	54.5	71.4	53.4	dB(A)
00:00 - 01:00	54.1	63.2	53.5	dB(A)
01:00 - 02:00	54.2	66.6	53.6	dB(A)
02:00 - 03:00	54.3	66.1	53.8	dB(A)
03:00 - 04:00	54.1	60.9	53.7	dB(A)
04:00 - 05:00	54.4	70.6	53.9	dB(A)
05:00 - 06:00	54.8	70.8	54.0	dB(A)
06:00 - 07:00	57.0	74.0	54.4	dB(A)
07:00 - 08:00	59.7	74.6	55.3	dB(A)
08:00 - 09:00	58.2	77.8	54.7	dB(A)
09:00 - 10:00	57.1	73.1	54.6	dB(A)
10:00 - 11:00	57.7	73.8	54.7	dB(A)
$L_{eq}$ 24 hr.	56.4	-	-	dB(A)
$L_{dn}$	61.6	-	-	dB(A)
Maximum	-	77.8	-	dB(A)
Standard	70 <sup>1/1</sup> , 70 <sup>2/2</sup>	115 <sup>1/1</sup> , 115 <sup>2/2</sup>	-	dB(A)

REMARK : <sup>1/1</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)<sup>1/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)<sup>1/3</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Photankhum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

11/09/2023

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Request No. LA66-R0919

Report No. R6609-0314

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
 ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 SAMPLE SOURCE : EOEG Plant  
 SAMPLE POINT : บริเวณริมรั้วด้านทิศเหนือ  
 PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{max}$ ,  $L_{90}$  &  $L_{dn}$   
 DETERMINATION METHOD : ISO 1996-1:2016  
 INSTRUMENT : Integrated Sound Level Meter S/N 00230994 : Class 1

SAMPLE NO. : 27165  
 MEASURING DATE : 30-31/08/2023  
 RECEIVED DATE : 04/09/2023  
 REPORTED DATE : 11/09/2023

TIME \ DATE	30-31/08/2023 ( $L_{eq}$ )	30-31/08/2023 ( $L_{max}$ )	30-31/08/2023 ( $L_{90}$ )	UNIT
11:00 - 12:00 <sup>3</sup>	58.2	75.5	54.8	dB(A)
12:00 - 13:00	56.9	69.6	54.7	dB(A)
13:00 - 14:00	57.2	74.8	54.9	dB(A)
14:00 - 15:00	57.1	74.4	55.0	dB(A)
15:00 - 16:00	56.8	76.1	54.9	dB(A)
16:00 - 17:00	58.3	79.6	54.8	dB(A)
17:00 - 18:00	58.2	74.6	54.6	dB(A)
18:00 - 19:00	57.1	77.1	54.1	dB(A)
19:00 - 20:00	56.3	69.7	54.4	dB(A)
20:00 - 21:00	56.4	74.2	54.1	dB(A)
21:00 - 22:00	54.8	69.6	53.9	dB(A)
22:00 - 23:00	55.5	74.5	53.8	dB(A)
23:00 - 00:00	54.6	68.5	53.8	dB(A)
00:00 - 01:00	54.1	63.7	53.5	dB(A)
01:00 - 02:00	54.1	69.2	53.5	dB(A)
02:00 - 03:00	54.4	70.1	53.8	dB(A)
03:00 - 04:00	54.2	69.6	53.5	dB(A)
04:00 - 05:00	54.3	65.8	53.7	dB(A)
05:00 - 06:00	57.2	85.4	54.0	dB(A)
06:00 - 07:00	57.2	75.8	54.3	dB(A)
07:00 - 08:00	59.9	74.1	55.4	dB(A)
08:00 - 09:00	58.9	85.3	54.5	dB(A)
09:00 - 10:00	56.5	76.8	53.5	dB(A)
10:00 - 11:00	56.5	80.4	53.0	dB(A)
$L_{eq}$ 24 hr.	56.7	-	-	dB(A)
$L_{dn}$	62.0	-	-	dB(A)
Maximum	-	85.4	-	dB(A)
Standard	$70^{1/1}, 70^{1/2}$	$115^{1/1}, 115^{1/2}$	-	dB(A)

REMARK : <sup>1/1</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)<sup>1/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)<sup>1/3</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Photankhum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

11/09/2023

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Request No. LA66-R0919

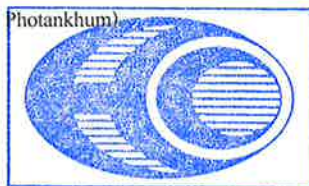
Report No. R6609-0315

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
 ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 SAMPLE SOURCE : EOEG Plant  
 SAMPLE POINT : บริเวณริมรั้วด้านทิศเหนือ  
 PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{max}$ ,  $L_{90}$  &  $L_{dn}$   
 DETERMINATION METHOD : ISO 1996-1:2016  
 INSTRUMENT : Integrated Sound Level Meter S/N 00230994 : Class 1

SAMPLE NO. : 27166  
 MEASURING DATE : 31/08/2023-01/09/2023  
 RECEIVED DATE : 04/09/2023  
 REPORTED DATE : 11/09/2023

TIME \ DATE	31/08/2023-01/09/2023 ( $L_{eq}$ )	31/08/2023-01/09/2023 ( $L_{max}$ )	31/08/2023-01/09/2023 ( $L_{90}$ )	UNIT
11:00 - 12:00 <sup>13</sup>	57.7	86.6	54.4	dB(A)
12:00 - 13:00	57.0	73.8	54.6	dB(A)
13:00 - 14:00	57.9	77.4	55.0	dB(A)
14:00 - 15:00	56.9	80.9	54.1	dB(A)
15:00 - 16:00	56.2	71.8	53.9	dB(A)
16:00 - 17:00	57.5	74.9	54.4	dB(A)
17:00 - 18:00	57.7	79.6	54.5	dB(A)
18:00 - 19:00	57.5	75.8	54.9	dB(A)
19:00 - 20:00	57.4	82.5	54.5	dB(A)
20:00 - 21:00	55.7	72.5	53.9	dB(A)
21:00 - 22:00	54.6	69.9	53.6	dB(A)
22:00 - 23:00	54.4	68.1	53.5	dB(A)
23:00 - 00:00	53.7	73.0	52.4	dB(A)
00:00 - 01:00	52.1	63.4	51.5	dB(A)
01:00 - 02:00	53.2	60.8	52.8	dB(A)
02:00 - 03:00	52.7	71.8	51.8	dB(A)
03:00 - 04:00	52.6	65.1	52.1	dB(A)
04:00 - 05:00	53.7	71.3	53.0	dB(A)
05:00 - 06:00	55.9	83.9	53.5	dB(A)
06:00 - 07:00	56.5	74.6	53.2	dB(A)
07:00 - 08:00	58.8	75.7	54.1	dB(A)
08:00 - 09:00	57.6	73.7	54.6	dB(A)
09:00 - 10:00	56.6	71.4	53.8	dB(A)
10:00 - 11:00	57.6	76.8	54.7	dB(A)
$L_{eq}$ 24 hr.	56.3	-	-	dB(A)
$L_{dn}$	61.1	-	-	dB(A)
Maximum	-	86.6	-	dB(A)
Standard	70 <sup>11</sup> , 70 <sup>12</sup>	115 <sup>11</sup> , 115 <sup>12</sup>	-	dB(A)

REMARK : <sup>11</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)<sup>12</sup> Notification of Ministry of the Industry B.E. 2548 (2005)<sup>13</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Photankhum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

11/09/2023

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Request No. LA66-R0919

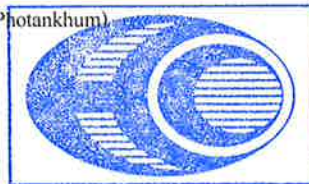
Report No. R6609-0316

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
 ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 SAMPLE SOURCE : EOEG Plant  
 SAMPLE POINT : บริเวณริมรั้วด้านทิศเหนือ  
 PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{max}$ ,  $L_{90}$  &  $L_{dn}$   
 DETERMINATION METHOD : ISO 1996-1:2016  
 INSTRUMENT : Integrated Sound Level Meter S/N 00230994 : Class 1

SAMPLE NO. : 27167  
 MEASURING DATE : 01-02/09/2023  
 RECEIVED DATE : 04/09/2023  
 REPORTED DATE : 11/09/2023

TIME \ DATE	01-02/09/2023 ( $L_{eq}$ )	01-02/09/2023 ( $L_{max}$ )	01-02/09/2023 ( $L_{90}$ )	UNIT
11:00 - 12:00 <sup>1)</sup>	57.3	72.2	54.7	dB(A)
12:00 - 13:00	56.5	76.5	54.3	dB(A)
13:00 - 14:00	57.2	78.3	55.0	dB(A)
14:00 - 15:00	56.7	67.6	55.0	dB(A)
15:00 - 16:00	56.6	72.9	54.6	dB(A)
16:00 - 17:00	57.6	71.4	54.8	dB(A)
17:00 - 18:00	57.9	75.2	55.0	dB(A)
18:00 - 19:00	58.0	76.2	54.9	dB(A)
19:00 - 20:00	57.4	74.4	55.2	dB(A)
20:00 - 21:00	56.6	73.2	54.8	dB(A)
21:00 - 22:00	55.7	73.1	54.5	dB(A)
22:00 - 23:00	55.1	68.3	54.3	dB(A)
23:00 - 00:00	55.7	70.1	54.3	dB(A)
00:00 - 01:00	55.4	71.3	54.4	dB(A)
01:00 - 02:00	55.1	67.9	54.4	dB(A)
02:00 - 03:00	55.4	68.4	54.5	dB(A)
03:00 - 04:00	54.5	63.3	54.0	dB(A)
04:00 - 05:00	54.8	64.4	54.1	dB(A)
05:00 - 06:00	54.7	68.7	53.7	dB(A)
06:00 - 07:00	56.9	77.6	53.9	dB(A)
07:00 - 08:00	58.2	72.6	54.4	dB(A)
08:00 - 09:00	57.3	79.1	54.3	dB(A)
09:00 - 10:00	56.0	71.8	53.7	dB(A)
10:00 - 11:00	55.4	69.3	53.0	dB(A)
$L_{eq}$ 24 hr.	56.5	-	-	dB(A)
$L_{dn}$	62.0	-	-	dB(A)
Maximum	-	79.1	-	dB(A)
Standard	$70^{1)}, 70^{2)}$	$115^{1)}, 115^{2)}$	-	dB(A)

REMARK : <sup>1)</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)<sup>2)</sup> Notification of Ministry of the Industry B.E. 2548 (2005)<sup>3)</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Photankhum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By 

(MRS. WANPEN LHAOCHINDAWAT)

11/09/2023

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Request No. LA66-R0919

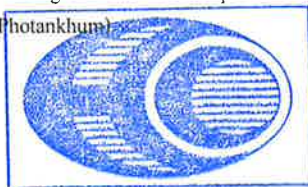
Report No. R6609-0317

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
 ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakom Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 SAMPLE SOURCE : EOEG Plant  
 SAMPLE POINT : บริเวณริมรั้วด้านทิศเหนือ  
 PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{max}$ ,  $L_{90}$  &  $L_{dn}$   
 DETERMINATION METHOD : ISO 1996-1:2016  
 INSTRUMENT : Integrated Sound Level Meter S/N 00230994 : Class 1

SAMPLE NO. : 27168  
 MEASURING DATE : 02-03/09/2023  
 RECEIVED DATE : 04/09/2023  
 REPORTED DATE : 11/09/2023

TIME \ DATE	02-03/09/2023 ( $L_{eq}$ )	02-03/09/2023 ( $L_{max}$ )	02-03/09/2023 ( $L_{90}$ )	UNIT
11:00 - 12:00 <sup>1/3</sup>	56.2	69.4	53.8	dB(A)
12:00 - 13:00	56.2	72.2	54.4	dB(A)
13:00 - 14:00	57.3	72.3	55.2	dB(A)
14:00 - 15:00	56.9	73.6	55.2	dB(A)
15:00 - 16:00	56.1	70.6	54.5	dB(A)
16:00 - 17:00	57.1	72.0	54.6	dB(A)
17:00 - 18:00	56.7	71.0	54.6	dB(A)
18:00 - 19:00	56.5	73.9	54.2	dB(A)
19:00 - 20:00	56.7	71.9	54.6	dB(A)
20:00 - 21:00	56.1	71.8	54.6	dB(A)
21:00 - 22:00	54.8	65.8	54.1	dB(A)
22:00 - 23:00	54.9	69.6	54.0	dB(A)
23:00 - 00:00	54.5	65.6	53.7	dB(A)
00:00 - 01:00	54.7	66.9	53.9	dB(A)
01:00 - 02:00	54.1	59.2	53.6	dB(A)
02:00 - 03:00	54.3	69.3	53.7	dB(A)
03:00 - 04:00	54.0	57.9	53.5	dB(A)
04:00 - 05:00	53.7	63.8	53.3	dB(A)
05:00 - 06:00	54.5	78.9	53.4	dB(A)
06:00 - 07:00	57.3	81.8	53.9	dB(A)
07:00 - 08:00	57.3	72.2	54.5	dB(A)
08:00 - 09:00	56.6	77.5	54.1	dB(A)
09:00 - 10:00	55.5	68.2	54.1	dB(A)
10:00 - 11:00	55.9	69.3	54.3	dB(A)
$L_{eq}$ 24 hr.	55.9	-	-	dB(A)
$L_{dn}$	61.5	-	-	dB(A)
Maximum	-	81.8	-	dB(A)
Standard	$70^{1/1}, 70^{2/2}$	$115^{1/1}, 115^{2/2}$	-	dB(A)

REMARK : <sup>1/1</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)<sup>1/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)<sup>1/3</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Photankhum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

11/09/2023

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Request No. LA66-R0919

Report No. R6609-0318

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
 ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 SAMPLE SOURCE : EOEG Plant  
 SAMPLE POINT : บริเวณริมรั้วด้านทิศเหนือ  
 PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{max}$ ,  $L_{90}$  &  $L_{dn}$   
 DETERMINATION METHOD : ISO 1996-1:2016  
 INSTRUMENT : Integrated Sound Level Meter S/N 00230994 : Class 1

SAMPLE NO. : 27169  
 MEASURING DATE : 03-04/09/2023  
 RECEIVED DATE : 04/09/2023  
 REPORTED DATE : 11/09/2023

TIME \ DATE	03-04/09/2023 ( $L_{eq}$ )	03-04/09/2023 ( $L_{max}$ )	03-04/09/2023 ( $L_{90}$ )	UNIT
11:00 - 12:00 <sup>1/3</sup>	55.7	69.6	54.2	dB(A)
12:00 - 13:00	55.4	67.1	54.1	dB(A)
13:00 - 14:00	56.2	77.3	54.3	dB(A)
14:00 - 15:00	56.4	80.4	54.6	dB(A)
15:00 - 16:00	56.3	79.4	54.6	dB(A)
16:00 - 17:00	56.8	75.1	54.8	dB(A)
17:00 - 18:00	55.9	70.5	54.8	dB(A)
18:00 - 19:00	57.0	74.9	55.1	dB(A)
19:00 - 20:00	57.1	74.0	55.0	dB(A)
20:00 - 21:00	55.5	66.9	54.6	dB(A)
21:00 - 22:00	55.3	69.9	54.5	dB(A)
22:00 - 23:00	55.0	62.4	54.3	dB(A)
23:00 - 00:00	54.8	65.2	54.1	dB(A)
00:00 - 01:00	54.6	66.6	53.8	dB(A)
01:00 - 02:00	54.5	67.2	53.9	dB(A)
02:00 - 03:00	54.1	65.8	53.7	dB(A)
03:00 - 04:00	54.3	64.3	53.7	dB(A)
04:00 - 05:00	54.7	72.3	54.0	dB(A)
05:00 - 06:00	54.8	71.5	53.7	dB(A)
06:00 - 07:00	57.0	75.0	54.4	dB(A)
07:00 - 08:00	59.8	78.5	55.4	dB(A)
08:00 - 09:00	57.7	75.4	54.7	dB(A)
09:00 - 10:00	56.6	68.1	54.6	dB(A)
10:00 - 11:00	56.6	70.9	54.6	dB(A)
$L_{eq}$ 24 hr.	56.1	-	-	dB(A)
$L_{dn}$	61.7	-	-	dB(A)
Maximum	-	80.4	-	dB(A)
Standard	$70^{1/1}, 70^{1/2}$	$115^{1/1}, 115^{1/2}$	-	dB(A)

REMARK : <sup>1/1</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)<sup>1/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)<sup>1/3</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Photankham)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

11/09/2023

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Request No. LA66-R0919

Report No. R6609-0305

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
 ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 SAMPLE SOURCE : EOEG Plant  
 SAMPLE POINT : บริเวณริมรั้วด้านทิศใต้  
 PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{max}$ ,  $L_{90}$  &  $L_{dn}$   
 DETERMINATION METHOD : ISO 1996-1:2016  
 INSTRUMENT : Integrated Sound Level Meter S/N 00230987 : Class 1

SAMPLE NO. : 27156  
 MEASURING DATE : 28-29/08/2023  
 RECEIVED DATE : 04/09/2023  
 REPORTED DATE : 11/09/2023

TIME \ DATE	28-29/08/2023 ( $L_{eq}$ )	28-29/08/2023 ( $L_{max}$ )	28-29/08/2023 ( $L_{90}$ )	UNIT
11:00 - 12:00 <sup>13</sup>	63.7	81.7	60.3	dB(A)
12:00 - 13:00	61.5	71.8	60.0	dB(A)
13:00 - 14:00	64.5	83.1	60.8	dB(A)
14:00 - 15:00	62.4	74.8	60.3	dB(A)
15:00 - 16:00	62.8	78.9	60.2	dB(A)
16:00 - 17:00	63.0	78.2	60.2	dB(A)
17:00 - 18:00	62.3	78.8	59.9	dB(A)
18:00 - 19:00	61.8	79.3	59.6	dB(A)
19:00 - 20:00	62.4	81.7	59.9	dB(A)
20:00 - 21:00	62.0	80.7	59.1	dB(A)
21:00 - 22:00	60.0	77.3	58.5	dB(A)
22:00 - 23:00	62.0	80.6	58.9	dB(A)
23:00 - 00:00	60.6	75.1	59.3	dB(A)
00:00 - 01:00	60.1	73.9	58.9	dB(A)
01:00 - 02:00	62.2	79.3	59.8	dB(A)
02:00 - 03:00	62.0	87.1	60.2	dB(A)
03:00 - 04:00	61.3	83.2	59.7	dB(A)
04:00 - 05:00	61.1	78.9	59.5	dB(A)
05:00 - 06:00	61.2	78.8	59.7	dB(A)
06:00 - 07:00	62.5	82.7	60.3	dB(A)
07:00 - 08:00	63.8	82.6	60.3	dB(A)
08:00 - 09:00	64.8	84.3	61.4	dB(A)
09:00 - 10:00	64.7	84.8	60.8	dB(A)
10:00 - 11:00	63.2	82.2	60.6	dB(A)
$L_{eq}$ 24 hr.	62.5	-	-	dB(A)
$L_{dn}$	68.2	-	-	dB(A)
Maximum	-	87.1	-	dB(A)
Standard	70 <sup>11</sup> , 70 <sup>12</sup>	115 <sup>11</sup> , 115 <sup>12</sup>	-	dB(A)

REMARK : <sup>11</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)<sup>12</sup> Notification of Ministry of the Industry B.E. 2548 (2005)<sup>13</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Photankhum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

11/09/2023

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Request No. LA66-R0919

Report No. R6609-0306

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
SAMPLE SOURCE : EOEG Plant  
SAMPLE POINT : บริเวณริมรั้วด้านทิศใต้  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{max}$ ,  $L_{90}$  &  $L_{dn}$   
DETERMINATION METHOD : ISO 1996-1:2016  
INSTRUMENT : Integrated Sound Level Meter S/N 00230987 : Class 1

SAMPLE NO. : 27157  
MEASURING DATE : 29-30/08/2023  
RECEIVED DATE : 04/09/2023  
REPORTED DATE : 11/09/2023

TIME \ DATE	29-30/08/2023 ( $L_{eq}$ )	29-30/08/2023 ( $L_{max}$ )	29-30/08/2023 ( $L_{90}$ )	UNIT
11:00 - 12:00 <sup>/3</sup>	64.1	84.5	60.5	dB(A)
12:00 - 13:00	61.9	86.9	59.6	dB(A)
13:00 - 14:00	64.3	86.5	60.9	dB(A)
14:00 - 15:00	64.1	83.0	61.4	dB(A)
15:00 - 16:00	63.6	82.0	61.1	dB(A)
16:00 - 17:00	64.3	83.4	60.7	dB(A)
17:00 - 18:00	62.9	80.3	59.8	dB(A)
18:00 - 19:00	62.6	83.4	58.5	dB(A)
19:00 - 20:00	61.5	80.8	58.6	dB(A)
20:00 - 21:00	61.5	77.1	59.3	dB(A)
21:00 - 22:00	60.9	73.4	59.5	dB(A)
22:00 - 23:00	61.7	79.0	59.7	dB(A)
23:00 - 00:00	60.5	77.9	58.8	dB(A)
00:00 - 01:00	60.5	79.4	58.8	dB(A)
01:00 - 02:00	60.2	84.0	58.9	dB(A)
02:00 - 03:00	60.3	73.2	59.2	dB(A)
03:00 - 04:00	62.8	83.3	59.3	dB(A)
04:00 - 05:00	60.5	76.5	59.5	dB(A)
05:00 - 06:00	61.9	79.7	59.5	dB(A)
06:00 - 07:00	61.5	74.7	59.3	dB(A)
07:00 - 08:00	63.2	86.3	59.4	dB(A)
08:00 - 09:00	64.7	83.7	61.6	dB(A)
09:00 - 10:00	63.3	88.6	60.4	dB(A)
10:00 - 11:00	63.1	82.0	60.3	dB(A)
$L_{eq}$ 24 hr.	62.6	-	-	dB(A)
$L_{dn}$	68.0	-	-	dB(A)
Maximum	-	88.6	-	dB(A)
Standard	70 <sup>/1</sup> , 70 <sup>/2</sup>	115 <sup>/1</sup> , 115 <sup>/2</sup>	-	dB(A)

REMARK : <sup>/1</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)<sup>/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)<sup>/3</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Phorankhum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By 

(MRS. WANPEN LHAOCHINDAWAT)

11/09/2023

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Request No. LA66-R0919

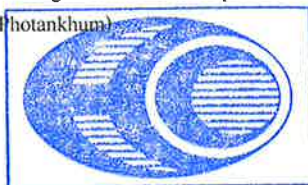
Report No. R6609-0307

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
Amphur Muang Rayong, Rayong 21150  
SAMPLE SOURCE : EOEG Plant  
SAMPLE POINT : บริเวณริมรั้วด้านทิศใต้  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{max}$ ,  $L_{90}$  &  $L_{dn}$   
DETERMINATION METHOD : ISO 1996-1:2016  
INSTRUMENT : Integrated Sound Level Meter S/N 00230987 : Class 1

SAMPLE NO. : 27158  
MEASURING DATE : 30-31/08/2023  
RECEIVED DATE : 04/09/2023  
REPORTED DATE : 11/09/2023

TIME \ DATE	30-31/08/2023 ( $L_{eq}$ )	30-31/08/2023 ( $L_{max}$ )	30-31/08/2023 ( $L_{90}$ )	UNIT
11:00 - 12:00 <sup>1/3</sup>	64.8	87.4	60.1	dB(A)
12:00 - 13:00	61.9	82.8	59.8	dB(A)
13:00 - 14:00	64.2	80.5	60.6	dB(A)
14:00 - 15:00	63.0	82.6	60.2	dB(A)
15:00 - 16:00	62.7	80.1	60.0	dB(A)
16:00 - 17:00	62.8	85.2	60.0	dB(A)
17:00 - 18:00	63.0	82.2	59.1	dB(A)
18:00 - 19:00	62.2	79.6	59.7	dB(A)
19:00 - 20:00	62.3	86.8	59.1	dB(A)
20:00 - 21:00	61.6	85.9	58.8	dB(A)
21:00 - 22:00	61.2	75.7	59.6	dB(A)
22:00 - 23:00	63.3	77.2	60.4	dB(A)
23:00 - 00:00	61.9	78.6	60.0	dB(A)
00:00 - 01:00	61.1	71.6	59.8	dB(A)
01:00 - 02:00	61.8	78.9	60.3	dB(A)
02:00 - 03:00	62.3	80.7	60.5	dB(A)
03:00 - 04:00	63.8	81.2	61.5	dB(A)
04:00 - 05:00	66.9	82.0	63.9	dB(A)
05:00 - 06:00	67.7	87.0	64.5	dB(A)
06:00 - 07:00	67.8	81.4	64.5	dB(A)
07:00 - 08:00	66.5	86.4	63.2	dB(A)
08:00 - 09:00	64.8	82.4	60.9	dB(A)
09:00 - 10:00	64.5	83.1	61.5	dB(A)
10:00 - 11:00	63.9	84.2	60.9	dB(A)
$L_{eq}$ 24 hr.	64.1	-	-	dB(A)
$L_{dn}$	71.1	-	-	dB(A)
Maximum	-	87.4	-	dB(A)
Standard	$70^{1/1}, 70^{2/2}$	$115^{1/1}, 115^{2/2}$	-	dB(A)

REMARK : <sup>1/1</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)<sup>1/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)<sup>1/3</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Photankhum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By 

(MRS. WANPEN LHAOCHINDAWAT)

11/09/2023

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Request No. LA66-R0919

Report No. R6609-0308

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
 ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
 Amphur Muang Rayong, Rayong 21150  
 SAMPLE SOURCE : EOEG Plant  
 SAMPLE POINT : บริเวณริมรั้วด้านทิศใต้  
 PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{max}$ ,  $L_{90}$  &  $L_{dn}$   
 DETERMINATION METHOD : ISO 1996-1:2016  
 INSTRUMENT : Integrated Sound Level Meter S/N 00230987 : Class 1

SAMPLE NO. : 27159  
 MEASURING DATE : 31/08/2023-01/09/2023  
 RECEIVED DATE : 04/09/2023  
 REPORTED DATE : 11/09/2023

TIME \ DATE	31/08/2023-01/09/2023 ( $L_{eq}$ )	31/08/2023-01/09/2023 ( $L_{max}$ )	31/08/2023-01/09/2023 ( $L_{90}$ )	UNIT
11:00 - 12:00 <sup>1/3</sup>	65.0	83.5	61.2	dB(A)
12:00 - 13:00	62.4	84.4	60.5	dB(A)
13:00 - 14:00	65.6	86.8	62.2	dB(A)
14:00 - 15:00	63.6	86.6	60.5	dB(A)
15:00 - 16:00	63.7	85.2	60.3	dB(A)
16:00 - 17:00	63.1	90.5	60.2	dB(A)
17:00 - 18:00	63.6	82.5	60.1	dB(A)
18:00 - 19:00	63.1	84.0	60.5	dB(A)
19:00 - 20:00	63.6	86.3	61.1	dB(A)
20:00 - 21:00	64.4	81.0	61.9	dB(A)
21:00 - 22:00	63.6	74.9	61.7	dB(A)
22:00 - 23:00	62.9	79.9	61.1	dB(A)
23:00 - 00:00	62.5	82.5	60.5	dB(A)
00:00 - 01:00	61.5	78.3	59.0	dB(A)
01:00 - 02:00	62.2	79.5	60.2	dB(A)
02:00 - 03:00	59.7	72.5	58.1	dB(A)
03:00 - 04:00	60.5	85.0	58.8	dB(A)
04:00 - 05:00	60.8	82.8	59.0	dB(A)
05:00 - 06:00	61.5	75.4	59.9	dB(A)
06:00 - 07:00	64.1	78.3	61.1	dB(A)
07:00 - 08:00	63.9	81.7	59.2	dB(A)
08:00 - 09:00	64.5	82.5	61.1	dB(A)
09:00 - 10:00	63.8	80.7	61.0	dB(A)
10:00 - 11:00	64.2	96.2	60.7	dB(A)
$L_{eq}$ 24 hr.	63.3	-	-	dB(A)
$L_{dn}$	68.7	-	-	dB(A)
Maximum	-	96.2	-	dB(A)
Standard	70 <sup>1/1</sup> , 70 <sup>2/2</sup>	115 <sup>1/1</sup> , 115 <sup>2/2</sup>	-	dB(A)

REMARK : <sup>1/1</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)<sup>1/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)<sup>1/3</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Photankhum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

11/09/2023

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Request No. LA66-R0919

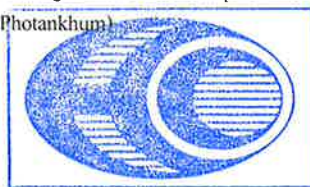
Report No. R6609-0309

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
 ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 SAMPLE SOURCE : EOEG Plant  
 SAMPLE POINT : บริเวณริมรั้วด้านทิศใต้  
 PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{max}$ ,  $L_{90}$  &  $L_{dn}$   
 DETERMINATION METHOD : ISO 1996-1:2016  
 INSTRUMENT : Integrated Sound Level Meter S/N 00230987 : Class 1

SAMPLE NO. : 27160  
 MEASURING DATE : 01-02/09/2023  
 RECEIVED DATE : 04/09/2023  
 REPORTED DATE : 11/09/2023

TIME \ DATE	01-02/09/2023 ( $L_{eq}$ )	01-02/09/2023 ( $L_{max}$ )	01-02/09/2023 ( $L_{90}$ )	UNIT
11:00 - 12:00 <sup>13</sup>	64.6	81.5	61.4	dB(A)
12:00 - 13:00	63.3	87.3	60.6	dB(A)
13:00 - 14:00	65.6	79.6	62.9	dB(A)
14:00 - 15:00	68.6	80.2	65.5	dB(A)
15:00 - 16:00	68.4	87.0	65.6	dB(A)
16:00 - 17:00	67.4	79.4	64.4	dB(A)
17:00 - 18:00	66.6	79.9	63.7	dB(A)
18:00 - 19:00	62.6	80.3	60.3	dB(A)
19:00 - 20:00	64.2	85.8	62.1	dB(A)
20:00 - 21:00	63.6	87.5	61.4	dB(A)
21:00 - 22:00	62.3	79.9	60.6	dB(A)
22:00 - 23:00	63.4	79.1	61.8	dB(A)
23:00 - 00:00	63.1	73.6	61.6	dB(A)
00:00 - 01:00	63.5	78.4	61.7	dB(A)
01:00 - 02:00	63.5	75.8	61.4	dB(A)
02:00 - 03:00	62.8	80.0	61.1	dB(A)
03:00 - 04:00	62.1	83.4	60.7	dB(A)
04:00 - 05:00	62.9	82.6	60.8	dB(A)
05:00 - 06:00	62.2	80.2	60.6	dB(A)
06:00 - 07:00	62.5	82.2	59.8	dB(A)
07:00 - 08:00	63.3	77.6	60.5	dB(A)
08:00 - 09:00	64.3	87.5	60.9	dB(A)
09:00 - 10:00	63.0	82.5	59.6	dB(A)
10:00 - 11:00	62.5	88.4	59.9	dB(A)
$L_{eq}$ 24 hr.	64.5	-	-	dB(A)
$L_{dn}$	69.7	-	-	dB(A)
Maximum	-	88.4	-	dB(A)
Standard	$70^{/1}, 70^{/2}$	$115^{/1}, 115^{/2}$	-	dB(A)

REMARK : <sup>1/1</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)<sup>1/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)<sup>1/3</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Photankhum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

11/09/2023

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Request No. LA66-R0919

Report No. R6609-0310

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakom Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
SAMPLE SOURCE : EOEG Plant  
SAMPLE POINT : บริเวณริมรั้วด้านทิศใต้  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{max}$ ,  $L_{90}$  &  $L_{dn}$   
DETERMINATION METHOD : ISO 1996-1:2016  
INSTRUMENT : Integrated Sound Level Meter S/N 00230987 : Class 1

SAMPLE NO. : 27161  
MEASURING DATE : 02-03/09/2023  
RECEIVED DATE : 04/09/2023  
REPORTED DATE : 11/09/2023

TIME \ DATE	02-03/09/2023 ( $L_{eq}$ )	02-03/09/2023 ( $L_{max}$ )	02-03/09/2023 ( $L_{90}$ )	UNIT
11:00 - 12:00 <sup>1/3</sup>	63.0	82.9	60.2	dB(A)
12:00 - 13:00	62.3	75.0	60.2	dB(A)
13:00 - 14:00	63.9	81.1	61.3	dB(A)
14:00 - 15:00	64.5	91.5	61.2	dB(A)
15:00 - 16:00	62.2	78.8	60.3	dB(A)
16:00 - 17:00	62.9	80.9	60.2	dB(A)
17:00 - 18:00	62.1	80.2	59.9	dB(A)
18:00 - 19:00	61.8	81.1	59.7	dB(A)
19:00 - 20:00	62.6	87.2	60.5	dB(A)
20:00 - 21:00	62.5	79.4	61.2	dB(A)
21:00 - 22:00	62.0	74.8	60.6	dB(A)
22:00 - 23:00	61.3	77.7	60.3	dB(A)
23:00 - 00:00	62.1	75.2	60.2	dB(A)
00:00 - 01:00	61.5	74.0	60.3	dB(A)
01:00 - 02:00	61.3	79.0	59.9	dB(A)
02:00 - 03:00	61.9	80.7	60.1	dB(A)
03:00 - 04:00	61.5	80.8	60.0	dB(A)
04:00 - 05:00	61.1	82.9	59.7	dB(A)
05:00 - 06:00	63.7	73.6	61.5	dB(A)
06:00 - 07:00	64.0	73.5	61.8	dB(A)
07:00 - 08:00	63.5	76.7	61.1	dB(A)
08:00 - 09:00	63.1	81.2	60.7	dB(A)
09:00 - 10:00	61.6	82.2	59.5	dB(A)
10:00 - 11:00	61.3	80.1	59.5	dB(A)
$L_{eq}$ 24 hr.	62.5	-	-	dB(A)
$L_{dn}$	68.7	-	-	dB(A)
Maximum	-	91.5	-	dB(A)
Standard	$70^{1/1}, 70^{1/2}$	$115^{1/1}, 115^{1/2}$	-	dB(A)

REMARK : <sup>1/1</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)<sup>1/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)<sup>1/3</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Photankhum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By



(MRS. WANPEN LHAOCHINDAWAT)

11/09/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. LA66-R0919

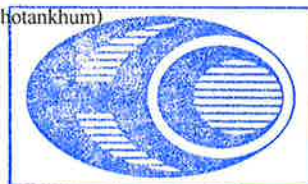
Report No. R6609-0311

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
 ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 SAMPLE SOURCE : EOEG Plant  
 SAMPLE POINT : บริเวณริมรั้วด้านทิศใต้  
 PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{max}$ ,  $L_{90}$  &  $L_{dn}$   
 DETERMINATION METHOD : ISO 1996-1:2016  
 INSTRUMENT : Integrated Sound Level Meter S/N 00230987 : Class 1

SAMPLE NO. : 27162  
 MEASURING DATE : 03-04/09/2023  
 RECEIVED DATE : 04/09/2023  
 REPORTED DATE : 11/09/2023

TIME \ DATE	03-04/09/2023 ( $L_{eq}$ )	03-04/09/2023 ( $L_{max}$ )	03-04/09/2023 ( $L_{90}$ )	UNIT
11:00 - 12:00 <sup>/3</sup>	61.8	79.1	59.8	dB(A)
12:00 - 13:00	61.3	82.8	59.4	dB(A)
13:00 - 14:00	61.4	75.8	59.6	dB(A)
14:00 - 15:00	62.5	82.9	60.1	dB(A)
15:00 - 16:00	60.9	73.5	59.5	dB(A)
16:00 - 17:00	63.5	80.4	59.8	dB(A)
17:00 - 18:00	61.5	77.1	59.8	dB(A)
18:00 - 19:00	61.4	74.5	59.7	dB(A)
19:00 - 20:00	62.2	81.9	60.0	dB(A)
20:00 - 21:00	61.7	76.2	60.3	dB(A)
21:00 - 22:00	61.2	71.2	60.3	dB(A)
22:00 - 23:00	62.1	79.5	60.2	dB(A)
23:00 - 00:00	61.2	79.0	59.8	dB(A)
00:00 - 01:00	60.9	74.4	59.9	dB(A)
01:00 - 02:00	60.8	69.4	60.0	dB(A)
02:00 - 03:00	61.4	77.6	59.5	dB(A)
03:00 - 04:00	60.7	70.6	59.9	dB(A)
04:00 - 05:00	62.2	80.6	60.2	dB(A)
05:00 - 06:00	61.3	83.4	59.6	dB(A)
06:00 - 07:00	63.0	82.3	59.8	dB(A)
07:00 - 08:00	64.2	89.0	59.6	dB(A)
08:00 - 09:00	65.9	87.5	60.8	dB(A)
09:00 - 10:00	64.6	89.1	61.2	dB(A)
10:00 - 11:00	62.9	88.7	60.5	dB(A)
$L_{eq}$ 24 hr.	62.3	-	-	dB(A)
$L_{dn}$	68.2	-	-	dB(A)
Maximum	-	89.1	-	dB(A)
Standard	$70^{/1}, 70^{/2}$	$115^{/1}, 115^{/2}$	-	dB(A)

REMARK : <sup>/1</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)<sup>/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)<sup>/3</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Photankhum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By 

(MRS. WANPEN LHAOCHINDAWAT)

11/09/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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 WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. ATR6608012

Report No. 6608-0194

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch16

ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150

SAMPLE SOURCE : EOEG Plant

SAMPLE NAME : พนักงานทำงานเกี่ยวข้องกับ EO (กลิ่นสันติชัย คำแก้ว)

SAMPLING DATE : 08/08/2023 SAMPLE NO : A66080194

RECEIVED DATE : 15/08/2023 SAMPLING TIME : 07:00-19:00

SAMPLING INSTRUMENT : Passive Sampling TESTED DATE : 15/08/2023-21/08/2023

REPORTED DATE : 21/08/2023

PARAMETER**	TEST METHOD	RESULT <sup>2</sup>	STD <sup>1</sup>	UNIT
Ethylene Oxide	OSHA 1010	ND	1.8	mg/m <sup>3</sup>
		ND	1.0	ppm

**REMARK:**

<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017),  
Concentration Limits of Hazardous Chemicals.

<sup>2</sup> ND = Non detectable : detection limit of Ethylene Oxide is 0.05 mg/m<sup>3</sup> or 0.03 ppm.

\*\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201 03-2564-0008  
Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Aocha Khwansirimongkon)  
Analysed By SECOT Co.,Ltd.



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



(Miss Thanatporn Klinsopon)

21/08/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. ATR6608012

Report No. 6608-0195

## TEST REPORT

CUSTOMER : GC Glycol Company Limited

ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150

SAMPLE SOURCE : EOEG Plant

SAMPLE NAME : พนักงานทำงานเกี่ยวข้องกับ EO (คุณวาทิ ลิ้นศิริ)

SAMPLING DATE : 08/08/2023 SAMPLE NO : A66080195

RECEIVED DATE : 15/08/2023 SAMPLING TIME : 07:00-19:00

SAMPLING INSTRUMENT : Passive Sampling TESTED DATE : 15/08/2023-21/08/2023

REPORTED DATE : 21/08/2023

PARAMETER**	TEST METHOD	RESULT <sup>2</sup>	STD <sup>1</sup>	UNIT
Ethylene Oxide	OSHA 1010	ND	1.8	mg/m <sup>3</sup>
		ND	1.0	ppm

**REMARK:**

<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017),  
Concentration Limits of Hazardous Chemicals.

<sup>2</sup> ND = Non detectable : detection limit of Ethylene Oxide is 0.05 mg/m<sup>3</sup> or 0.03 ppm.

\*\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008  
Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Aocha Khwansirimongkon)  
Analysed By SECOT Co.,Ltd.



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By .....



(Miss Thanatporn Klinsoon)

21/08/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. LA66-R0824

Report No. R6608-4082

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16

ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakom Songkhraorat Road,  
Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150

SAMPLE SOURCE : EOEG Plant

SAMPLE POINT : Compressor Area : C-115

PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  8 hr. &  $L_{max}$  SAMPLE NO. : 25240

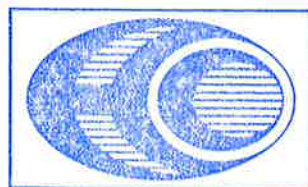
DETERMINATION METHOD : SO 11202:2010 MEASURING DATE : 09/08/2023

INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 09/08/2023  
S/N 00322754 : Class 2 REPORTED DATE : 15/08/2023

MEASURING TIME	RESULT		UNIT
	$L_{eq}$ 1 hr.	$L_{max}$	
07:00-08:00	82.9	83.7	dB(A)
08:00-09:00	82.9	84.0	dB(A)
09:00-10:00	82.9	83.8	dB(A)
10:00-11:00	82.9	89.1	dB(A)
11:00-12:00	82.8	83.6	dB(A)
12:00-13:00	82.7	83.9	dB(A)
13:00-14:00	82.6	83.4	dB(A)
14:00-15:00	82.7	83.8	dB(A)
$L_{eq}$ 8 hr.	82.8	—	dB(A)
Standard	$90^{/1}$	$140^{/1}, 115^{/2}$	dB(A)

REMARK : <sup>/1</sup> Notification of The Ministry of Industry B.E. 2546 (2003)<sup>/2</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)

\* Measurement By Ms. Savita Kittinoavarat



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

15/08/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

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WITHOUT THE WRITTEN APPROVAL LABORATORY



Request No. LA66-R0824

Report No. R6608-4081

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16

ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road,  
Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150

SAMPLE SOURCE : EOEG Plant

SAMPLE POINT : Compressor Area : C-320

PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  8 hr. &  $L_{max}$  SAMPLE NO. : 25239

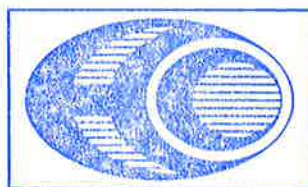
DETERMINATION METHOD : ISO 11202:2010 MEASURING DATE : 09/08/2023

INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 09/08/2023  
S/N 00322747 : Class 2 REPORTED DATE : 15/08/2023

MEASURING TIME	RESULT		UNIT
	$L_{eq}$ 1 hr.	$L_{max}$	
07:00-08:00	83.0	83.5	dB(A)
08:00-09:00	82.9	83.4	dB(A)
09:00-10:00	82.9	84.6	dB(A)
10:00-11:00	83.0	91.6	dB(A)
11:00-12:00	82.8	83.4	dB(A)
12:00-13:00	82.7	83.5	dB(A)
13:00-14:00	82.7	83.5	dB(A)
14:00-15:00	82.7	83.2	dB(A)
$L_{eq}$ 8 hr.	82.8	—	dB(A)
Standard	90 <sup>/1</sup>	140 <sup>/1</sup> , 115 <sup>/2</sup>	dB(A)

REMARK : <sup>/1</sup> Notification of The Ministry of Industry B.E. 2546 (2003)<sup>/2</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)

\* Measurement By Ms. Savita Kittinoavarat



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By



(MRS. WANPEN LHAOCHINDAWAT)

15/08/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. LA66-R0979

Report No. R6609-2185

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
 ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road,  
 Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 SAMPLE SOURCE : EOEG Plant  
 SAMPLE POINT : Operation 1 (คูณพชรพล เพชรสุวรรณ ID 26008123)  
 MEASURING DATE : 22/09/2023 SAMPLE NO. : 29074  
 RECEIVED DATE : 22/09/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Noise dosimeter : S/N CB0958 REPORTED DATE : 25/09/2023

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	78.6	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	93.0	115 <sup>/3</sup>	dB(A)
12 Hour dose	34.30	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	80.4	85 <sup>/1</sup>	dB(A)

## REMARK :

- <sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)  
<sup>/2</sup> Standard of National Institute for Occupational Safety and Health, Occupational Noise Exposure Revised Criteria 1998  
<sup>/3</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)  
<sup>#</sup> Based on Criteria 85 dB(A) ; 3 dB Exchange Rate  
 \* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009  
 (Measurement By Ms. Savita Kittinoavarat)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

25/09/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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Request No. LA66-R0874

Report No. R6608-5669

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16

ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road,  
Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150

SAMPLE SOURCE : EOEG Plant

SAMPLE POINT : Operation 2 (อุณคมศรี พรหมวงศ์ ID 26007065)

MEASURING DATE : 28/08/2023 SAMPLE NO. : 26839

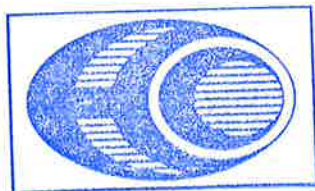
RECEIVED DATE : 28/08/2023 SAMPLING TIME : 07:00-19:00

SAMPLING INSTRUMENT : Noise dosimeter : S/N CB0956 REPORTED DATE : 30/08/2023

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	79.8	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	94.7	115 <sup>/3</sup>	dB(A)
12 Hour dose	45.80	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	81.6	85 <sup>/1</sup>	dB(A)

**REMARK :**

- <sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)
- <sup>/2</sup> Standard of National Institute for Occupational Safety and Health, Occupational Noise Exposure Revised Criteria 1998
- <sup>/3</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)
- <sup>#</sup> Based on Criteria 85 dB(A) ; 3 dB Exchange Rate
- \* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009  
(Measurement By Ms. Pornnapha Phongphet)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

30/08/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. LA66-R0874

Report No. R6608-5670

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road,  
Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
SAMPLE SOURCE : EOEG Plant  
SAMPLE POINT : Operation 3 (คูณวาทิ สิ้นศิริ ID 26003073)  
MEASURING DATE : 28/08/2023 SAMPLE NO. : 26840  
RECEIVED DATE : 28/08/2023 SAMPLING TIME : 07:00-19:00  
SAMPLING INSTRUMENT : Noise dosimeter : S/N CB0954 REPORTED DATE : 30/08/2023

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	80.6	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	94.3	115 <sup>/3</sup>	dB(A)
12 Hour dose	53.90	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	82.3	85 <sup>/1</sup>	dB(A)

**REMARK :**<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)<sup>/2</sup> Standard of National Institute for Occupational Safety and Health, Occupational Noise Exposure Revised Criteria 1998<sup>/3</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)<sup>#</sup> Based on Criteria 85 dB(A) ; 3 dB Exchange Rate

\* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009

(Measurement By Ms. Pornnapha Phongphet)



Approved By

(MRS. WANPEN LHAOCHINDAWAT)

30/08/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

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WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. LA66-R0874

Report No. R6608-5671

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 16  
 ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road,  
 Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 SAMPLE SOURCE : EOEG Plant  
 SAMPLE POINT : Operation 4 (คุณอัมพร ทองสันต์ ID 26004739)  
 MEASURING DATE : 28/08/2023 SAMPLE NO. : 26841  
 RECEIVED DATE : 28/08/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Noise dosimeter : S/N CB0957 REPORTED DATE : 30/08/2023

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	81.9	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	94.3	115 <sup>/3</sup>	dB(A)
12 Hour dose	73.20	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	83.6	85 <sup>/1</sup>	dB(A)

**REMARK :**<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)<sup>/2</sup> Standard of National Institute for Occupational Safety and Health, Occupational Noise Exposure Revised Criteria 1998<sup>/3</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)<sup>#</sup> Based on Criteria 85 dB(A) ; 3 dB Exchange Rate

\* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009  
 (Measurement By Ms. Pornnapa Phongphet)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

30/08/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
 THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
 WITHOUT THE WRITTEN APPROVAL LABORATORY



Request No. ATR6608012

Report No. 6608-0187

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch16  
 ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 SAMPLE SOURCE : EOEG Plant  
 SAMPLE NAME : EO Scrubbing (T-311)  
 SAMPLING DATE : 08/08/2023 SAMPLE NO. : A66080187  
 RECEIVED DATE : 15/08/2023 SAMPLING TIME : 07:37-19:37  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.05 L/min TESTED DATE : 15/08/2023-00/00/0000  
 Serial No. 20150302001 REPORTED DATE : 21/08/2023

PARAMETER**	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Carbon Dioxide	Non-Dispersive Infrared Method	1,344.6	9,000	mg/m <sup>3</sup>
		747.0	5,000	ppm

**REMARK:**<sup>/1</sup> Occupational Safety and Health Administration (OSHA) ; Standard Number 1910.1000 Table Z-1 Limits for Air Contaminants.

\*\* Parameter not have License Registration of Department of Labour Protection and Welfare.

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Aocha Khwansirimongkon)

Analysed By SECOT Co.,Ltd.

GPS = Sampling at UTM 47 P 731050E 1404810N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Thanatporn Klinsoon)

21/08/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
 THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
 WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. ATR6611013

Report No. 6611-0213

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch16  
 ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 SAMPLE SOURCE : EOEG Plant  
 SAMPLE NAME : EO Scrubbing (T-311)  
 SAMPLING DATE : 06/11/2023 SAMPLE NO. : A66110213  
 RECEIVED DATE : 08/11/2023 SAMPLING TIME : 08:11-20:11  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.05 L/min TESTED DATE : 08/11/2023-21/11/2023  
 Serial No. 20160502018 REPORTED DATE : 21/11/2023

PARAMETER**	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Carbon Dioxide	Non-Dispersive Infrared Method	2,091.6	9,000	mg/m <sup>3</sup>
		1,162.0	5,000	ppm

## REMARK:

<sup>/1</sup> Occupational Safety and Health Administration (OSHA) ; Standard Number 1910.1000 Table Z-1 Limits for Air Contaminants.

\*\* Parameter not have License Registration of Department of Labour Protection and Welfare.

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Suttha Songthani nai)

Analysed By SECOT Co.,Ltd.

GPS = Sampling at UTM 47 P 731050E 1404810N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Thanatporn Klinsonpon)

21/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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Request No. ATR6608012

Report No. 6608-0188

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch16  
ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
SAMPLE SOURCE : EOEG Plant  
SAMPLE NAME : CO2 Removal Unit (T-220)  
SAMPLING DATE : 08/08/2023  
RECEIVED DATE : 15/08/2023  
SAMPLING INSTRUMENT : Personal Pump Flow rate 0.05 L/min  
Serial No. 20150302004

SAMPLE NO. : A66080188  
SAMPLING TIME : 07:43-19:43  
TESTED DATE : 15/08/2023-21/08/2023  
REPORTED DATE : 22/08/2023

PARAMETER**	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Carbon Dioxide	Non-Dispersive Infrared Method	1,310.4	9,000	mg/m <sup>3</sup>
		728.0	5,000	ppm

## REMARK:

<sup>/1</sup> Occupational Safety and Health Administration (OSHA) ; Standard Number 1910.1000 Table Z-1 Limits for Air Contaminants.

\*\* Parameter not have License Registration of Department of Labour Protection and Welfare.

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Aocha Khwansirimongkon)

Analysed By SECOT Co.,Ltd.

GPS = Sampling at UTM 47 P 731017E 1404785N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Thanatporn Klinsoyon)

22/08/2023

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WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. ATR6611013

Report No. 6611-0214

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch16  
ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
SAMPLE SOURCE : EOEG Plant  
SAMPLE NAME : CO2 Removal Unit (T-220)  
SAMPLING DATE : 06/11/2023 SAMPLE NO. : A66110214  
RECEIVED DATE : 08/11/2023 SAMPLING TIME : 08:14-20:14  
SAMPLING INSTRUMENT : Personal Pump Flow rate 0.05 L/min TESTED DATE : 08/11/2023-21/11/2023  
Serial No. 20160502020 REPORTED DATE : 21/11/2023

PARAMETER**	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Carbon Dioxide	Non-Dispersive Infrared Method	1,537.2	9,000	mg/m <sup>3</sup>
		854.0	5,000	ppm

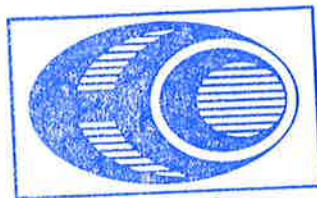
**REMARK:**<sup>/1</sup> Occupational Safety and Health Administration (OSHA) ; Standard Number 1910.1000 Table Z-1 Limits for Air Contaminants.

\*\* Parameter not have License Registration of Department of Labour Protection and Welfare.

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Suttha Songthaninai)

Analysed By SECOT Co.,Ltd.

GPS = Sampling at UTM 47 P 731017E 1404785N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Thanatporn Klinsonon)

21/11/2023

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Request No. ATR6608012

Report No. 6608-0189

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch16  
 ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 SAMPLE SOURCE : EOEG Plant  
 SAMPLE NAME : Glycol Feed Stripper (T-510)  
 SAMPLING DATE : 08/08/2023 SAMPLE NO. : A66080189  
 RECEIVED DATE : 15/08/2023 SAMPLING TIME : 07:36-19:36  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.05 L/min TESTED DATE : 15/08/2023-22/08/2023  
 Serial No. 218444 REPORTED DATE : 22/08/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Formaldehyde	Sorbent Adsorption, Gas	< 0.43	0.92	mg/m <sup>3</sup>
	Chromatography/NIOSH 2541	< 0.35	0.75	ppm

## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and No.0202-03-2564-0005.

(Sampling By Mr. Aocha Khwansirimongkon)

GPS = Sampling at UTM 47 P 731046E 1404821N

Examined By

(Miss Thanatporn Klinsonon)

22/08/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

22/08/2023

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Request No. ATR6611013

Report No. 6611-0215

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch16  
 ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 SAMPLE SOURCE : EOEG Plant  
 SAMPLE NAME : Glycol Feed Stripper (T-510)  
 SAMPLING DATE : 06/11/2023 SAMPLE NO. : A66110215  
 RECEIVED DATE : 08/11/2023 SAMPLING TIME : 08:09-20:09  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.05 L/min TESTED DATE : 08/11/2023-13/11/2023  
 Serial No. 218383 REPORTED DATE : 21/11/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Formaldehyde	Sorbent Adsorption, Gas	< 0.43	0.92	mg/m <sup>3</sup>
	Chromatography/NIOSH 2541	< 0.35	0.75	ppm

## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and No.0202-03-2564-0005.

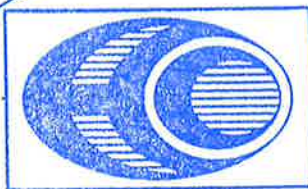
(Sampling By Mr. Suttha Songthaninai)

GPS = Sampling at UTM 47 P 731046E 1404821N

Examined By

(Miss Thanatporn Klinsopon)

21/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

21/11/2023

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Request No. ATR6608012

Report No. 6608-0190

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch16  
 ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 SAMPLE SOURCE : EOEG Plant  
 SAMPLE NAME : EO Purification Unit (T-410)  
 SAMPLING DATE : 08/08/2023 SAMPLE NO. : A66080190  
 RECEIVED DATE : 15/08/2023 SAMPLING TIME : 07:55-19:55  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.05 L/min TESTED DATE : 15/08/2023-22/08/2023  
 Serial No. 218405 REPORTED DATE : 22/08/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Formaldehyde	Sorbent Adsorption, Gas	< 0.43	0.92	mg/m <sup>3</sup>
	Chromatography/NIOSH 2541	< 0.35	0.75	ppm

## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and No.0202-03-2564-0005.

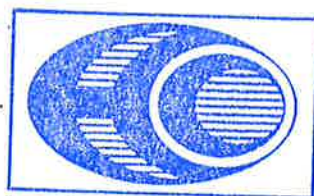
(Sampling By Mr. Aocha Khwansirimongkon)

GPS = Sampling at UTM 47 P 731019E 1404725N

Examined By

(Miss Thanatporn Klinsopon)

22/08/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

22/08/2023

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Request No. ATR6611013

Report No. 6611-0216

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch16  
 ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
 SAMPLE SOURCE : EOEG Plant  
 SAMPLE NAME : EO Purification Unit (T-410)  
 SAMPLING DATE : 06/11/2023 SAMPLE NO. : A66110216  
 RECEIVED DATE : 08/11/2023 SAMPLING TIME : 08:18-20:18  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.05 L/min TESTED DATE : 08/11/2023-13/11/2023  
 Serial No. 218413 REPORTED DATE : 21/11/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Formaldehyde	Sorbent Adsorption, Gas	< 0.43	0.92	mg/m <sup>3</sup>
	Chromatography/NIOSH 2541	< 0.35	0.75	ppm

## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and No.0202-03-2564-0005.

(Sampling By Mr. Suttha Songthaninai)

GPS = Sampling at UTM 47 P 731019E 1404725N

Examined By

(Miss Thanatporn Klinsopon)

21/11/2023



Approved By

(Mr. Kawee Suthasub)

21/11/2023

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Request No. ATR6608012

Report No. 6608-0191

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch16

ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150

SAMPLE SOURCE : EOEG Plant

SAMPLE NAME : EO Purification Unit (T-410) SAMPLE NO : A66080191

SAMPLING DATE : 08/08/2023 SAMPLING TIME : 07:56-19:56

RECEIVED DATE : 15/08/2023 TESTED DATE : 15/08/2023-21/08/2023

SAMPLING INSTRUMENT : Passive Sampling REPORTED DATE : 21/08/2023

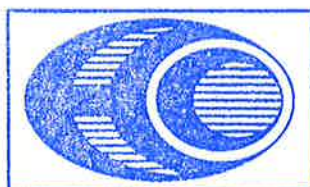
PARAMETER**	TEST METHOD	RESULT <sup>1/2</sup>	STD <sup>1/</sup>	UNIT
Ethylene Oxide	OSHA 1010	ND	1.8	mg/m <sup>3</sup>
		ND	1.0	ppm

**REMARK:**

<sup>1/</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017),  
Concentration Limits of Hazardous Chemicals.

<sup>1/2</sup> ND = Non detectable : detection limit of Ethylene Oxide is 0.05 mg/m<sup>3</sup> or 0.03 ppm.

\*\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008  
Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Aocha Khwansirimongkon)  
Analysed By SECOT Co.,Ltd. / GPS = Sampling at UTM 47 P 731019E 1404725N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



(Miss Thanatpon Klinsopon)

21/08/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

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Request No. ATR6611013

Report No. 6611-0217

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch16  
ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
Amphur Muang Rayong, Rayong 21150  
SAMPLE SOURCE : EOEG Plant  
SAMPLE NAME : EO Purification Unit (T-410) SAMPLE NO : A66110217  
SAMPLING DATE : 06/11/2023 SAMPLING TIME : 08:18-20:18  
RECEIVED DATE : 08/11/2023 TESTED DATE : 08/11/2023-20/11/2023  
SAMPLING INSTRUMENT : Passive Sampling REPORTED DATE : 21/11/2023

PARAMETER**	TEST METHOD	RESULT <sup>/2</sup>	STD <sup>/1</sup>	UNIT
Ethylene Oxide	OSHA 1010	ND	1.8	mg/m <sup>3</sup>
		ND	1.0	ppm

**REMARK:**

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017),  
Concentration Limits of Hazardous Chemicals.

<sup>/2</sup> ND = Non detectable : detection limit of Ethylene Oxide is 0.05 mg/m<sup>3</sup> or 0.03 ppm.

\*\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008  
Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Suttha Songthaninai)  
Analysed By SECOT Co.,Ltd. / GPS = Sampling at UTM 47 P 731019E 1404725N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



(Miss Thanatporn Klinsohon)

21/11/2023

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Request No. ATR6608012

Report No. 6608-0192

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch16

ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
Amphur Muang Rayong, Rayong 21150

SAMPLE SOURCE : EOEG Plant

SAMPLE NAME : ริมรั้วโครงการด้านทิศตะวันตก SAMPLE NO : A66080192

SAMPLING DATE : 08/08/2023 SAMPLING TIME : 08:07-20:07

RECEIVED DATE : 15/08/2023 TESTED DATE : 15/08/2023-21/08/2023

SAMPLING INSTRUMENT : Passive Sampling REPORTED DATE : 21/08/2023

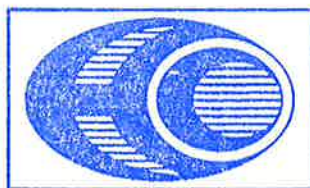
PARAMETER**	TEST METHOD	RESULT <sup>2</sup>	STD <sup>1</sup>	UNIT
Ethylene Oxide	OSHA 1010	ND	1.8	mg/m <sup>3</sup>
		ND	1.0	ppm

**REMARK:**

<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017),  
Concentration Limits of Hazardous Chemicals.

<sup>2</sup> ND = Non detectable : detection limit of Ethylene Oxide is 0.05 mg/m<sup>3</sup> or 0.03 ppm.

\*\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008  
Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Aocha Khwansirimongkon)  
Analysed By SECOT Co.,Ltd. / GPS = Sampling at UTM 47 P 730858E 1404823N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By .....

(Miss Thanatporn Klinsohon)

21/08/2023

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Request No. ATR6611013

Report No. 6611-0218

**TEST REPORT**

CUSTOMER : PTT Global Chemical Public Company Limited Branch16

ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150

SAMPLE SOURCE : EOEG Plant

SAMPLE NAME : ริมรั้วโครงการด้านทิศตะวันตก

SAMPLE NO : A66110218

SAMPLING DATE : 06/11/2023

SAMPLING TIME : 08:31-20:31

RECEIVED DATE : 08/11/2023

TESTED DATE : 08/11/2023-20/11/2023

SAMPLING INSTRUMENT : Passive Sampling

REPORTED DATE : 21/11/2023

PARAMETER**	TEST METHOD	RESULT <sup>2</sup>	STD <sup>1</sup>	UNIT
Ethylene Oxide	OSHA 1010	ND	1.8	mg/m <sup>3</sup>
		ND	1.0	ppm

**REMARK:**

<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017),  
Concentration Limits of Hazardous Chemicals.

<sup>2</sup> ND = Non detectable : detection limit of Ethylene Oxide is 0.05 mg/m<sup>3</sup> or 0.03 ppm.

\*\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008  
Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Suttha Songthaninai)  
Analysed By SECOT Co.,Ltd. / GPS = Sampling at UTM 47 P 730858E 1404823N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



(Miss Thanatporn Klinsopon)

21/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

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Request No. ATR6608012

Report No. 6608-0193

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch16

ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
Amphur Muang Rayong, Rayong 21150

SAMPLE SOURCE : EOEG Plant

SAMPLE NAME : EO Storage Tank (O3) (D-1410A) SAMPLE NO : A66080193

SAMPLING DATE : 08/08/2023 SAMPLING TIME : 07:58-19:58

RECEIVED DATE : 15/08/2023 TESTED DATE : 15/08/2023-21/08/2023

SAMPLING INSTRUMENT : Passive Sampling REPORTED DATE : 21/08/2023

PARAMETER**	TEST METHOD	RESULT	STD <sup>1</sup>	UNIT
Ethylene Oxide	OSHA 1010	0.06	1.8	mg/m <sup>3</sup>
		0.03	1.0	ppm

**REMARK:**

<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017),  
Concentration Limits of Hazardous Chemicals.

\*\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008  
Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Aocha Khwansirimongkon)  
Analysed By SECOT Co.,Ltd. / GPS = Sampling at UTM 47 P 731004E 1404676N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By   
(Miss Thanatporn Klinsopon)  
21/08/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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Request No. ATR6611013

Report No. 6611-0219

**TEST REPORT**

CUSTOMER : PTT Global Chemical Public Company Limited Branch16

ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
Amphur Muang Rayong, Rayong 21150

SAMPLE SOURCE : EOEG Plant

SAMPLE NAME : EO Storage Tank (O3) (D-1410A)      SAMPLE NO : A66110219

SAMPLING DATE : 06/11/2023      SAMPLING TIME : 08:22-20:22

RECEIVED DATE : 08/11/2023      TESTED DATE : 08/11/2023-20/11/2023

SAMPLING INSTRUMENT : Passive Sampling      REPORTED DATE : 21/11/2023

PARAMETER**	TEST METHOD	RESULT <sup>1/2</sup>	STD <sup>1/</sup>	UNIT
Ethylene Oxide	OSHA 1010	ND	1.8	mg/m <sup>3</sup>
		ND	1.0	ppm

**REMARK:**

<sup>1/</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017),  
Concentration Limits of Hazardous Chemicals.

<sup>1/2</sup> ND = Non detectable : detection limit of Ethylene Oxide is 0.05 mg/m<sup>3</sup> or 0.03 ppm.

\*\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008  
Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Suttha Songthaninai)  
Analysed By SECOT Co.,Ltd. / GPS = Sampling at UTM 47 P 731004E 1404676N



Examined By



(Miss Thanatporn Klinsohon)

21/11/2023

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