

Request No. LA65-R1217

Report No. R6512-0379

## 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 : Waste Heat Boiler  
SAMPLE NO. : 35291  
SAMPLING DATE : 07/12/2022  
SAMPLING TIME : 10:31-11:30  
RECEIVED DATE : 07/12/2022  
REPORTED DATE : 08/12/2022

## STACK DESCRIPTION

Height :	23.00	m	Type of Process :	Combustion
Diameter :	0.80	m	Type of Fuel :	Natural Gas
Temperature :	114.00	°C	Oxygen Content :	5.25 %
Air Velocity :	4.49	m/s	Barometric Pressure :	755.50 mm.Hg
Flow rate <sup>3</sup> :	1.24	m <sup>3</sup> /s	Atmospheric Temperature :	32.00 °C
Moisture Content :	28.04	%		

PARAMETER*	TEST METHOD	TIME	RESULT <sup>3</sup>		STD <sup>1</sup>	UNIT
			5.25 % O <sub>2</sub>	7 % O <sub>2</sub>		
Oxides of Nitrogen	US.EPA Method 7E	10:31-11:30	44.8	39.8	376, 85.0 <sup>2</sup>	mg/m <sup>3</sup>
(NO <sub>x</sub> as NO <sub>2</sub> )			23.8	21.1	200, 45.2 <sup>2</sup>	ppm
			0.0556	-	0.068 <sup>2</sup>	g/s

## REMARK:

<sup>1</sup> Notification of The Ministry of Industry B.E. 2549 (2006)

<sup>2</sup> ค่าที่กำหนดไว้ในรายงานการเปลี่ยนแปลงรายละเอียดโครงการในรายงานการประเมินผลกระทบสิ่งแวดล้อม (EIA) ของโครงการโรงงานผลิตเอทิลีนออกไซด์และเอทิลีนไกลคอล (ครั้งที่ 5) ของบริษัท พีทีที โกลบอล เคมิคอล จำกัด (มหาชน) สาขา 16 พ.ศ. 2562

<sup>3</sup> DRY BASIS ( 25°C, 760 mm.Hg)

\* Sampling By Mr. Metee Sukprasert



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By



(MR. THONGCHAI BOONSAK)

08/12/2022

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WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. LA65-R1150

Report No. R6511-2732 – R6511-2738

## 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 6757

SAMPLE NO. : 33942-33948  
 SAMPLING DATE : 03-10/11/2022  
 RECEIVED DATE : 10/11/2022  
 REPORTED DATE : 22/11/2022

TIME / DATE	03-04/11/2022	04-05/11/2022	05-06/11/2022	UNIT
10:00 – 11:00 <sup>2</sup>	0.002	0.013	0.010	ppm
11:00 – 12:00	0.003	0.012	0.013	ppm
12:00 – 13:00	0.008	0.009	0.012	ppm
13:00 – 14:00	0.008	0.006	0.013	ppm
14:00 – 15:00	0.008	0.007	0.010	ppm
15:00 – 16:00	0.005	0.007	0.012	ppm
16:00 – 17:00	0.006	0.008	0.009	ppm
17:00 – 18:00	0.008	0.009	0.012	ppm
18:00 – 19:00	0.012	0.015	0.011	ppm
19:00 – 20:00	0.011	0.011	0.012	ppm
20:00 – 21:00	0.009	0.010	0.013	ppm
21:00 – 22:00	0.012	0.009	0.011	ppm
22:00 – 23:00	0.015	0.016	0.012	ppm
23:00 – 00:00	0.012	0.015	0.015	ppm
00:00 – 01:00	0.013	0.011	0.010	ppm
01:00 – 02:00	0.010	0.006	0.008	ppm
02:00 – 03:00	0.007	0.007	0.005	ppm
03:00 – 04:00	0.007	0.007	0.004	ppm
04:00 – 05:00	0.006	0.007	0.004	ppm
05:00 – 06:00	0.007	0.007	0.003	ppm
06:00 – 07:00	0.007	0.006	0.004	ppm
07:00 – 08:00	0.009	0.007	0.005	ppm
08:00 – 09:00	0.011	0.009	0.006	ppm
09:00 – 10:00	0.016	0.008	0.010	ppm
Maximum 1 hr.	0.016	0.016	0.015	ppm
Average 24 hr.	0.009	0.009	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. Tummarat Phornkham)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MS. THANATPORN KLINSOPON)

22/11/2022

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Request No. LA65-R1150

Report No. R6511-2732 – R6511-2738

## 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 6757

SAMPLE NO. : 33942-33948  
 SAMPLING DATE : 03-10/11/2022  
 RECEIVED DATE : 10/11/2022  
 REPORTED DATE : 22/11/2022

TIME / DATE	06-07/11/2022	07-08/11/2022	08-09/11/2022	UNIT
10:00 – 11:00 <sup>2</sup>	0.010	0.004	0.010	ppm
11:00 – 12:00	0.010	0.008	0.008	ppm
12:00 – 13:00	0.007	0.012	0.008	ppm
13:00 – 14:00	0.008	0.011	0.006	ppm
14:00 – 15:00	0.006	0.007	0.007	ppm
15:00 – 16:00	0.006	0.006	0.010	ppm
16:00 – 17:00	0.007	0.007	0.009	ppm
17:00 – 18:00	0.008	0.006	0.009	ppm
18:00 – 19:00	0.006	0.007	0.014	ppm
19:00 – 20:00	0.004	0.008	0.017	ppm
20:00 – 21:00	0.004	0.008	0.016	ppm
21:00 – 22:00	0.005	0.009	0.011	ppm
22:00 – 23:00	0.005	0.009	0.013	ppm
23:00 – 00:00	0.005	0.008	0.011	ppm
00:00 – 01:00	0.005	0.006	0.009	ppm
01:00 – 02:00	0.004	0.006	0.009	ppm
02:00 – 03:00	0.004	0.005	0.006	ppm
03:00 – 04:00	0.004	0.004	0.006	ppm
04:00 – 05:00	0.003	0.004	0.005	ppm
05:00 – 06:00	0.003	0.004	0.005	ppm
06:00 – 07:00	0.003	0.006	0.006	ppm
07:00 – 08:00	0.003	0.006	0.007	ppm
08:00 – 09:00	0.005	0.008	0.009	ppm
09:00 – 10:00	0.004	0.011	0.007	ppm
Maximum 1 hr.	0.010	0.012	0.017	ppm
Average 24 hr.	0.005	0.007	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. Tummarat Phatankham)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MS. THANATPORN KLINSOPON)

22/11/2022

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Request No. LA65-R1150

Report No. R6511-2732 – R6511-2738

## 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 : บ้านหนองแฟบ  
 PARAMETER\* : Nitrogen Dioxide  
 DETERMINATION METHOD : Chemiluminescence  
 INSTRUMENT : API Model T200 S/N 6757

SAMPLE NO. : 33942-33948  
 SAMPLING DATE : 03-10/11/2022  
 RECEIVED DATE : 10/11/2022  
 REPORTED DATE : 22/11/2022

TIME / DATE	09-10/11/2022	UNIT
10:00 – 11:00 <sup>2</sup>	0.008	ppm
11:00 – 12:00	0.006	ppm
12:00 – 13:00	0.008	ppm
13:00 – 14:00	0.005	ppm
14:00 – 15:00	0.005	ppm
15:00 – 16:00	0.007	ppm
16:00 – 17:00	0.008	ppm
17:00 – 18:00	0.010	ppm
18:00 – 19:00	0.012	ppm
19:00 – 20:00	0.009	ppm
20:00 – 21:00	0.017	ppm
21:00 – 22:00	0.021	ppm
22:00 – 23:00	0.016	ppm
23:00 – 00:00	0.011	ppm
00:00 – 01:00	0.008	ppm
01:00 – 02:00	0.008	ppm
02:00 – 03:00	0.008	ppm
03:00 – 04:00	0.008	ppm
04:00 – 05:00	0.007	ppm
05:00 – 06:00	0.006	ppm
06:00 – 07:00	0.007	ppm
07:00 – 08:00	0.007	ppm
08:00 – 09:00	0.008	ppm
09:00 – 10:00	0.008	ppm
Maximum 1 hr.	0.021	ppm
Average 24 hr.	0.009	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 Photakhum)

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Request No. LA65-R1150

Report No. R6511-2718 – R6511-2724

## 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 7355

SAMPLE NO. : 33928-33934  
SAMPLING DATE : 03-10/11/2022  
RECEIVED DATE : 10/11/2022  
REPORTED DATE : 22/11/2022

TIME / DATE	03-04/11/2022	04-05/11/2022	05-06/11/2022	UNIT
11:00 – 12:00 <sup>2</sup>	0.003	0.005	0.005	ppm
12:00 – 13:00	0.003	0.003	0.005	ppm
13:00 – 14:00	0.003	0.003	0.005	ppm
14:00 – 15:00	0.003	0.004	0.007	ppm
15:00 – 16:00	0.012	0.013	0.007	ppm
16:00 – 17:00	0.012	0.027	0.006	ppm
17:00 – 18:00	0.007	0.027	0.010	ppm
18:00 – 19:00	0.010	0.010	0.013	ppm
19:00 – 20:00	0.020	0.025	0.023	ppm
20:00 – 21:00	0.022	0.022	0.020	ppm
21:00 – 22:00	0.034	0.029	0.013	ppm
22:00 – 23:00	0.029	0.024	0.010	ppm
23:00 – 00:00	0.024	0.030	0.013	ppm
00:00 – 01:00	0.017	0.024	0.012	ppm
01:00 – 02:00	0.012	0.014	0.008	ppm
02:00 – 03:00	0.007	0.011	0.004	ppm
03:00 – 04:00	0.005	0.011	0.003	ppm
04:00 – 05:00	0.007	0.008	0.003	ppm
05:00 – 06:00	0.008	0.008	0.003	ppm
06:00 – 07:00	0.016	0.008	0.004	ppm
07:00 – 08:00	0.023	0.011	0.007	ppm
08:00 – 09:00	0.032	0.014	0.010	ppm
09:00 – 10:00	0.013	0.011	0.006	ppm
10:00 – 11:00	0.008	0.007	0.005	ppm
Maximum 1 hr.	0.034	0.030	0.023	ppm
Average 24 hr.	0.014	0.014	0.008	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 Photankitum)

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Approved By

(MS. THANATPORN KLINSOPON)

22/11/2022

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Request No. LA65-R1150

Report No. R6511-2718 – R6511-2724

## 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 : วัดมาบชลุค  
 PARAMETER\* : Nitrogen Dioxide  
 DETERMINATION METHOD : Chemiluminescence  
 INSTRUMENT : API Model T200 S/N 7355

SAMPLE NO. : 33928-33934  
 SAMPLING DATE : 03-10/11/2022  
 RECEIVED DATE : 10/11/2022  
 REPORTED DATE : 22/11/2022

TIME / DATE	06-07/11/2022	07-08/11/2022	08-09/11/2022	UNIT
11:00 – 12:00 <sup>2</sup>	0.003	0.004	0.003	ppm
12:00 – 13:00	0.005	0.003	0.003	ppm
13:00 – 14:00	0.007	0.006	0.004	ppm
14:00 – 15:00	0.007	0.013	0.020	ppm
15:00 – 16:00	0.005	0.013	0.026	ppm
16:00 – 17:00	0.005	0.012	0.015	ppm
17:00 – 18:00	0.006	0.008	0.024	ppm
18:00 – 19:00	0.011	0.023	0.036	ppm
19:00 – 20:00	0.012	0.030	0.036	ppm
20:00 – 21:00	0.010	0.030	0.025	ppm
21:00 – 22:00	0.013	0.030	0.016	ppm
22:00 – 23:00	0.014	0.025	0.021	ppm
23:00 – 00:00	0.013	0.023	0.012	ppm
00:00 – 01:00	0.010	0.019	0.013	ppm
01:00 – 02:00	0.010	0.010	0.009	ppm
02:00 – 03:00	0.010	0.011	0.008	ppm
03:00 – 04:00	0.007	0.011	0.008	ppm
04:00 – 05:00	0.005	0.006	0.010	ppm
05:00 – 06:00	0.008	0.012	0.014	ppm
06:00 – 07:00	0.008	0.020	0.017	ppm
07:00 – 08:00	0.012	0.025	0.009	ppm
08:00 – 09:00	0.020	0.001	0.005	ppm
09:00 – 10:00	0.015	0.004	0.004	ppm
10:00 – 11:00	0.005	0.003	0.004	ppm
Maximum 1 hr.	0.020	0.030	0.036	ppm
Average 24 hr.	0.009	0.014	0.014	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. Tummarat Photakham)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

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Approved By.....

(MS. THANATPORN KLINSOPON)

22/11/2022

Request No. LA65-R1150

Report No. R6511-2718 – R6511-2724

## 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 7355

SAMPLE NO. : 33928-33934  
SAMPLING DATE : 03-10/11/2022  
RECEIVED DATE : 10/11/2022  
REPORTED DATE : 22/11/2022

TIME / DATE	09-10/11/2022	UNIT
11:00 – 12:00 <sup>2</sup>	0.003	ppm
12:00 – 13:00	0.003	ppm
13:00 – 14:00	0.003	ppm
14:00 – 15:00	0.004	ppm
15:00 – 16:00	0.013	ppm
16:00 – 17:00	0.018	ppm
17:00 – 18:00	0.039	ppm
18:00 – 19:00	0.037	ppm
19:00 – 20:00	0.032	ppm
20:00 – 21:00	0.022	ppm
21:00 – 22:00	0.016	ppm
22:00 – 23:00	0.015	ppm
23:00 – 00:00	0.011	ppm
00:00 – 01:00	0.009	ppm
01:00 – 02:00	0.009	ppm
02:00 – 03:00	0.009	ppm
03:00 – 04:00	0.008	ppm
04:00 – 05:00	0.011	ppm
05:00 – 06:00	0.013	ppm
06:00 – 07:00	0.013	ppm
07:00 – 08:00	0.010	ppm
08:00 – 09:00	0.005	ppm
09:00 – 10:00	0.004	ppm
10:00 – 11:00	0.006	ppm
Maximum 1 hr.	0.039	ppm
Average 24 hr.	0.013	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. Tummarat Phorankhum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MS. THANATPORN KLINSOPON)

22/11/2022

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Request No. LA65-R1150

Report No. R6511-2725 – R6511-2731

## 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 : สำนักงานนิคมอุตสาหกรรมดับบลิวเอชเอ ตะวันออก (มาบตาพุด)  
PARAMETER\* : Nitrogen Dioxide  
DETERMINATION METHOD : Chemiluminescence  
INSTRUMENT : API Model T200 S/N 6756

SAMPLE NO. : 33935-33941  
SAMPLING DATE : 03-10/11/2022  
RECEIVED DATE : 10/11/2022  
REPORTED DATE : 22/11/2022

TIME / DATE	03-04/11/2022	04-05/11/2022	05-06/11/2022	UNIT
11:00 – 12:00 <sup>2</sup>	0.002	0.013	0.017	ppm
12:00 – 13:00	0.015	0.011	0.019	ppm
13:00 – 14:00	0.014	0.008	0.019	ppm
14:00 – 15:00	0.017	0.013	0.019	ppm
15:00 – 16:00	0.014	0.025	0.016	ppm
16:00 – 17:00	0.014	0.018	0.020	ppm
17:00 – 18:00	0.010	0.018	0.023	ppm
18:00 – 19:00	0.017	0.011	0.024	ppm
19:00 – 20:00	0.030	0.021	0.029	ppm
20:00 – 21:00	0.039	0.036	0.031	ppm
21:00 – 22:00	0.043	0.046	0.019	ppm
22:00 – 23:00	0.034	0.037	0.015	ppm
23:00 – 00:00	0.032	0.040	0.016	ppm
00:00 – 01:00	0.023	0.030	0.014	ppm
01:00 – 02:00	0.011	0.022	0.009	ppm
02:00 – 03:00	0.010	0.020	0.007	ppm
03:00 – 04:00	0.009	0.018	0.008	ppm
04:00 – 05:00	0.013	0.015	0.008	ppm
05:00 – 06:00	0.009	0.016	0.011	ppm
06:00 – 07:00	0.012	0.015	0.016	ppm
07:00 – 08:00	0.024	0.016	0.014	ppm
08:00 – 09:00	0.024	0.018	0.015	ppm
09:00 – 10:00	0.021	0.014	0.015	ppm
10:00 – 11:00	0.016	0.014	0.014	ppm
Maximum 1 hr.	0.043	0.046	0.031	ppm
Average 24 hr.	0.019	0.021	0.016	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. Tummarat Phatankham)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MS. THANATPORN KLINSOPON)

22/11/2022

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Request No. LA65-R1150

Report No. R6511-2725 – R6511-2731

## 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 : EOG Plant  
SAMPLE POINT : สำนักงานนิคมอุตสาหกรรมดับบลิวเอชเอ ตะวันออก (มาตาฟุต)  
PARAMETER\* : Nitrogen Dioxide  
DETERMINATION METHOD : Chemiluminescence  
INSTRUMENT : API Model T200 S/N 6756

SAMPLE NO. : 33935-33941  
SAMPLING DATE : 03-10/11/2022  
RECEIVED DATE : 10/11/2022  
REPORTED DATE : 22/11/2022

TIME / DATE	06-07/11/2022	07-08/11/2022	08-09/11/2022	UNIT
11:00 – 12:00 <sup>2</sup>	0.015	0.024	0.026	ppm
12:00 – 13:00	0.012	0.021	0.026	ppm
13:00 – 14:00	0.008	0.016	0.022	ppm
14:00 – 15:00	0.008	0.015	0.022	ppm
15:00 – 16:00	0.008	0.016	0.019	ppm
16:00 – 17:00	0.010	0.015	0.024	ppm
17:00 – 18:00	0.010	0.018	0.031	ppm
18:00 – 19:00	0.010	0.024	0.032	ppm
19:00 – 20:00	0.009	0.024	0.040	ppm
20:00 – 21:00	0.009	0.028	0.041	ppm
21:00 – 22:00	0.009	0.024	0.035	ppm
22:00 – 23:00	0.009	0.025	0.031	ppm
23:00 – 00:00	0.008	0.027	0.029	ppm
00:00 – 01:00	0.007	0.025	0.027	ppm
01:00 – 02:00	0.007	0.020	0.026	ppm
02:00 – 03:00	0.012	0.023	0.025	ppm
03:00 – 04:00	0.014	0.024	0.022	ppm
04:00 – 05:00	0.014	0.024	0.023	ppm
05:00 – 06:00	0.015	0.027	0.023	ppm
06:00 – 07:00	0.018	0.028	0.022	ppm
07:00 – 08:00	0.017	0.028	0.023	ppm
08:00 – 09:00	0.016	0.025	0.019	ppm
09:00 – 10:00	0.010	0.025	0.019	ppm
10:00 – 11:00	0.024	0.027	0.018	ppm
Maximum 1 hr.	0.024	0.028	0.041	ppm
Average 24 hr.	0.011	0.023	0.026	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. Tummarat Pholankrum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MS. THANATPORN KLINSOPON)

22/11/2022

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



Request No. LA65-R1150

Report No. R6511-2725 – R6511-2731

## 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  
 DETERMINATION METHOD : Chemiluminescence  
 INSTRUMENT : API Model T200 S/N 6756

SAMPLE NO. : 33935-33941  
 SAMPLING DATE : 03-10/11/2022  
 RECEIVED DATE : 10/11/2022  
 REPORTED DATE : 22/11/2022

TIME / DATE	09-10/11/2022	UNIT
11:00 – 12:00 <sup>2</sup>	0.018	ppm
12:00 – 13:00	0.017	ppm
13:00 – 14:00	0.015	ppm
14:00 – 15:00	0.017	ppm
15:00 – 16:00	0.021	ppm
16:00 – 17:00	0.015	ppm
17:00 – 18:00	0.012	ppm
18:00 – 19:00	0.025	ppm
19:00 – 20:00	0.040	ppm
20:00 – 21:00	0.043	ppm
21:00 – 22:00	0.036	ppm
22:00 – 23:00	0.030	ppm
23:00 – 00:00	0.022	ppm
00:00 – 01:00	0.020	ppm
01:00 – 02:00	0.021	ppm
02:00 – 03:00	0.021	ppm
03:00 – 04:00	0.019	ppm
04:00 – 05:00	0.018	ppm
05:00 – 06:00	0.017	ppm
06:00 – 07:00	0.016	ppm
07:00 – 08:00	0.017	ppm
08:00 – 09:00	0.015	ppm
09:00 – 10:00	0.011	ppm
10:00 – 11:00	0.010	ppm
Maximum 1 hr.	0.043	ppm
Average 24 hr.	0.021	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 Photankham)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MS. THANATPORN KLINSOPON)

22/11/2022

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

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## Wind Speed &amp; Wind Direction

Request No. LA65-R1150

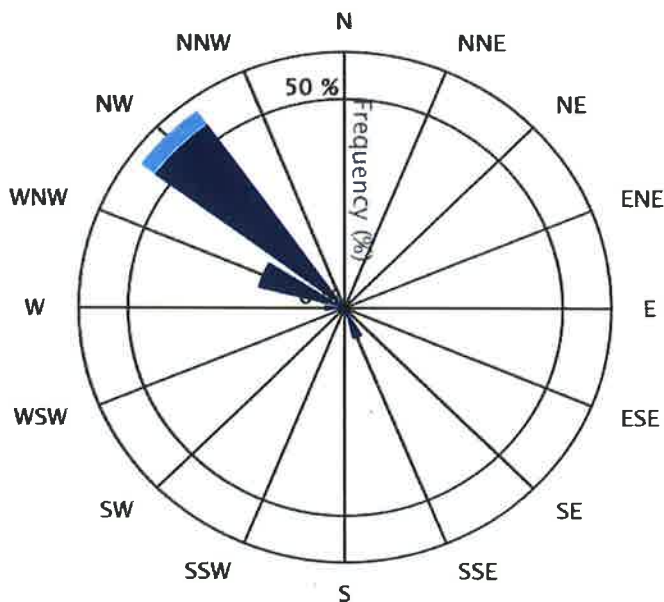
PTT Global Chemical Public Company Limited Branch 16 (EOEG Plant)

Sample No. 33963

Sampling Source : สำนักงานนิคมอุตสาหกรรมดับบลิวเอชเอ ตะวันออก (มาบตาพุด)

Sampling Date : November 3-10, 2022

Calm 3.6 %


 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	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	0.6	0.0	0.0	0.0	0.0	0.0	0.6
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	7.7	0.0	0.0	0.0	0.0	0.0	7.7
S	1.8	0.0	0.0	0.0	0.0	0.0	1.8
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	4.8	0.0	0.0	0.0	0.0	0.0	4.8
WNW	20.8	0.0	0.0	0.0	0.0	0.0	20.8
NW	54.2	4.2	0.0	0.0	0.0	0.0	58.4
NNW	2.4	0.0	0.0	0.0	0.0	0.0	2.4
Calm	3.6						

## Wind Speed &amp; Wind Direction

Request No. LA65-R1150

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

Sample No. 33963

Sampling Source : สำนักงานนิคมอุตสาหกรรมดับบลิวเอชเอ ตะวันออก (มาตาพุด)

Sampling Date : November 3-10, 2022


Time	November 3-4, 2022		November 4-5, 2022		November 5-6, 2022		November 6-7, 2022		November 7-8, 2022		November 8-9, 2022		November 9-10, 2022	
	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
11:00-12:00	0.4	NNW	1.8	NW	1.8	NW	0.9	NW	1.3	NW	2.2	NW	2.2	NW
12:00-13:00	0.9	NW	0.9	NW	1.3	NW	0.9	SSE	1.3	NW	1.3	NW	1.8	NW
13:00-14:00	1.3	NW	0.9	NW	0.9	NW	0.4	S	0.4	SSE	1.8	NW	1.3	NW
14:00-15:00	0.9	NW	1.3	ESE	0.9	NW	0.9	S	0.9	SSE	1.3	NW	1.3	NW
15:00-16:00	0.9	SSE	0.9	WNW	0.9	NW	0.9	SSE	0.4	W	0.9	SSE	0.9	NW
16:00-17:00	0.4	SSE	0.9	S	0.9	NW	0.4	SSE	0.4	W	0.9	WNW	0.4	SSE
17:00-18:00	0.4	SSE	0.9	SSE	0.9	NW	1.3	NW	0.9	W	0.9	WNW	0.0	-
18:00-19:00	0.4	SSE	0.4	SSE	0.9	NW	0.4	NW	0.9	WNW	0.0	-	0.0	-
19:00-20:00	0.4	W	0.4	W	0.4	NW	0.4	W	0.4	NW	0.0	-	0.4	NNW
20:00-21:00	0.4	WNW	0.4	W	0.4	NNW	0.9	WNW	0.9	NW	0.0	-	0.9	WNW
21:00-22:00	0.9	WNW	0.4	WNW	0.9	NW	0.4	NW	0.9	WNW	0.4	WNW	0.9	WNW
22:00-23:00	0.4	WNW	0.4	WNW	0.9	NW	0.9	NW	0.9	NW	0.9	WNW	0.9	WNW
23:00-00:00	0.4	NW	0.4	NW	0.9	NW	0.4	NW	0.9	NW	0.9	WNW	0.4	WNW
00:00-01:00	0.9	NW	0.4	NW	0.9	NW	0.4	WNW	0.4	NW	0.9	WNW	0.4	WNW
01:00-02:00	0.9	WNW	0.4	NW	0.9	NW	0.4	NW	0.9	NW	0.9	WNW	0.4	WNW
02:00-03:00	0.9	W	0.9	NW	0.9	NW	0.4	NNW	0.9	NW	0.9	WNW	0.4	NW
03:00-04:00	1.3	WNW	0.9	NW	1.3	NW	0.0	-	0.4	NW	0.9	WNW	0.9	NW
04:00-05:00	0.9	WNW	1.3	NW	0.9	WNW	0.4	WNW	0.4	NW	0.9	NW	1.3	NW
05:00-06:00	0.9	WNW	1.3	NW	0.9	NW	0.9	WNW	0.4	NW	1.3	NW	1.3	NW
06:00-07:00	0.9	WNW	1.3	NW	0.9	NW	0.4	WNW	0.9	NW	1.3	NW	0.9	NW
07:00-08:00	0.4	NW	1.3	NW	0.9	NW	0.4	NW	0.4	WNW	1.3	NW	1.8	NW
08:00-09:00	0.9	NW	1.3	NW	0.9	NW	0.4	NW	0.9	NW	1.3	NW	2.2	NW
09:00-10:00	1.3	NW	1.8	NW	0.9	NW	1.3	NW	1.8	NW	2.2	NW	2.2	NW
10:00-11:00	1.8	NW	2.2	NW	1.3	NW	1.8	NW	1.8	NW	2.2	NW	0.9	NW

**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 65070665  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 06/07/2022\*\*  
Sampling By : ETC\*\* Sampling Time : 9:00 AM\*\*  
Sampling Method : Grab\*\* Received Date : 07/07/2022  
Tested Date : 07/07/2022 – 08/07/2022 Reported Date : 11/07/2022

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	54
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)	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 / Mr. Kawee Suthasub is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Supharerk Phatklang (จ-003-จ-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-ค-4377)  
11 / 07 / 2022



Approved By   
( Mr. Kawee Suthasub )  
(จ-003-ค-2205)  
11 / 07 / 2022

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6507172

Report No : 6507-0733

## TEST REPORT

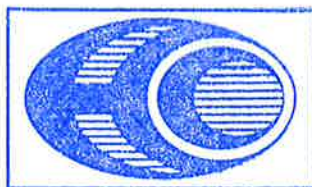
Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
Amphur Muang Rayong, Rayong 21150

Sampling Source : EOEG Plant Sample No. : W 65070665  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit Sampling Date : 06/07/2022  
Sampling By : ETC Sampling Time : 9:00 AM  
Sampling Method : Grab Received Date : 07/07/2022  
Tested Date : 07/07/2022 – 08/07/2022 Reported Date : 11/07/2022

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	0.05
Oil and Grease	mg/l	Partition-Gravimetric Method (SM:5520B)	0.4

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. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Parameter Outside The Scope of The Registration of Department of Industrial Works  
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 (๖-003-๖-5637)  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

( Miss Apiradee Chuen-arom)

11 / 07 / 2022

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**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 65071397  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 14/07/2022\*\*  
Sampling By : ETC\*\* Sampling Time : 9:23 AM\*\*  
Sampling Method : Grab\*\* Received Date : 15/07/2022  
Tested Date : 15/07/2022 – 20/07/2022 Reported Date : 22/07/2022

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	64
pH (on site) *		Electrometric Method	6.7
Temperature *	°C	Laboratory and Field Method	29
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 Miss Pornpinan Viriyakusolkul (จ-003-จ-8334)\*  
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)  
22 / 07 / 2022



Approved By   
( Mr. Kawee Suthasub )  
(จ-003-ค-2205)  
22 / 07 / 2022

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Request No : W6507351

Report No : 6507-1633

## TEST REPORT

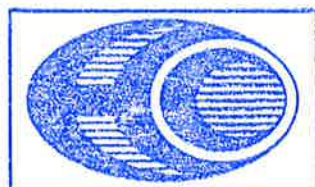
Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
Amphur Muang Rayong, Rayong 21150

Sampling Source : EOEG Plant Sample No. : W 65071397  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit Sampling Date : 14/07/2022  
Sampling By : ETC Sampling Time : 9:23 AM  
Sampling Method : Grab Received Date : 15/07/2022  
Tested Date : 15/07/2022 – 20/07/2022 Reported Date : 22/07/2022

Parameter	Unit	Method	Result
Chloride	mg/l as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	134
Formaldehyde	mg/l	Distillation, Colorimetric Method	0.03
Oil and Grease	mg/l	Partition-Gravimetric Method (SM:5520B)	2.1

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 : 1. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Parameter Outside The Scope of The Registration of Department of Industrial Works  
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 (๓-๐๐3-๖-8334)  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

( Miss Apiradee Chuen-arom )

22 / 07 / 2022

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 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 65071690  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 20/07/2022\*\*  
Sampling By : ETC\*\* Sampling Time : 9:50 AM\*\*  
Sampling Method : Grab\*\* Received Date : 21/07/2022  
Tested Date : 21/07/2022 – 27/07/2022 Reported Date : 02/08/2022

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	64
pH (on site) *		Electrometric Method	6.8
Temperature *	°C	Laboratory and Field Method	28
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 / Mr. Kawee Suthasub is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Songpon Phiwan (จ-003-ค-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-ค-4377)  
02 / 08 / 2022



Approved By.....  
( Mr. Kawee Suthasub )  
(จ-003-ค-2205)  
02 / 08 / 2022

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

Request No : W6507457

Report No : 6508-0033

## TEST REPORT

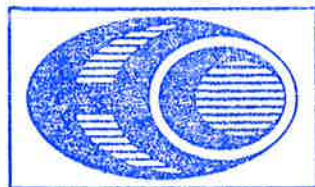
Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150

Sampling Source : EOEG Plant Sample No. : W 65071690  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit Sampling Date : 20/07/2022  
Sampling By : ETC Sampling Time : 9:50 AM  
Sampling Method : Grab Received Date : 21/07/2022  
Tested Date : 21/07/2022 – 27/07/2022 Reported Date : 02/08/2022

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	0.04
Oil and Grease	mg/l	Partition-Gravimetric Method (SM:5520B)	0.5

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. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Parameter Outside The Scope of The Registration of Department of Industrial Works  
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 (ว-003-ก-7279)  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

( Miss Apiradee Chuen-arom)

02 / 08 / 2022

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 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 65072134  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 27/07/2022\*\*  
Sampling By : ETC\*\* Sampling Time : 9:15 AM\*\*  
Sampling Method : Grab\*\* Received Date : 29/07/2022  
Tested Date : 29/07/2022 – 03/08/2022 Reported Date : 04/08/2022

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	60
pH (on site) *		Electrometric Method	7.0
Temperature *	°C	Laboratory and Field Method	34
Total Suspended Solids #	mg/l	Dried at 103-105 °C (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 / Mr. Kawee Suthasub is Technical Management.  
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Supharerk Phatklang (จ-003-จ-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-ค-4377)

04 / 08 / 2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By



( Mr. Kawee Suthasub )

(จ-003-ค-2205)

04 / 08 / 2022

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6507591

Report No : 6508-0394

## TEST REPORT

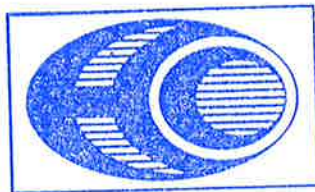
Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
Amphur Muang Rayong, Rayong 21150

Sampling Source : EOEG Plant Sample No. : W 65072134  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit Sampling Date : 27/07/2022  
Sampling By : ETC Sampling Time : 9:15 AM  
Sampling Method : Grab Received Date : 29/07/2022  
Tested Date : 29/07/2022 – 03/08/2022 Reported Date : 04/08/2022

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)	0.6

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. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Parameter Outside The Scope of The Registration of Department of Industrial Works  
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 (๖-003-๖-5637)  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By 

( Miss Apiradee Chuen-arom )

04 / 08 / 2022


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 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 65080441  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 03/08/2022\*\*  
Sampling By : ETC\*\* Sampling Time : 9:50 AM\*\*  
Sampling Method : Grab\*\* Received Date : 04/08/2022  
Tested Date : 04/08/2022 – 09/08/2022 Reported Date : 11/08/2022

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	83
pH (on site) *		Electrometric Method	7.4
Temperature *	°C	Laboratory and Field Method	31
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. Supharerk Phatklang (จ-003-จ-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-ค-4377)  
11 / 08 / 2022



Approved By   
( Mr. Kawee Suthasub )  
(จ-003-ค-2205)  
11 / 08 / 2022

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6508107

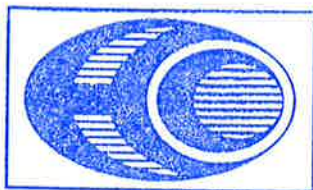
Report No : 6508-0841

## 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 65080441  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit Sampling Date : 03/08/2022  
Sampling By : ETC Sampling Time : 9:50 AM  
Sampling Method : Grab Received Date : 04/08/2022  
Tested Date : 04/08/2022 -- 09/08/2022 Reported Date : 11/08/2022

Parameter	Unit	Method	Result
Chloride	mg/l as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	150
Formaldehyde	mg/l	Distillation, Colorimetric Method	0.07
Oil and Grease	mg/l	Partition-Gravimetric Method (SM:5520B)	0.6

- 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. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
2. Parameter Outside The Scope of The Registration of Department of Industrial Works  
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 (๖-003-๖-5637)  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By 

( Miss Apiradee Chuen-arom )

11 / 08 / 2022


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 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 65081020  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 10/08/2022\*\*  
Sampling By : ETC\*\* Sampling Time : 9:15 AM\*\*  
Sampling Method : Grab\*\* Received Date : 11/08/2022  
Tested Date : 11/08/2022-18/08/2022 Reported Date : 22/08/2022

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	50
pH (on site) *		Electrometric Method	6.6
Temperature *	°C	Laboratory and Field Method	30
Total Suspended Solids #	mg/l	Dried at 103-105 °C (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 / 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)  
22 / 08 / 2022



Approved By   
( Mr. Kawee Suthasub )  
(จ-003-ท-2205)  
22 / 08 / 2022

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6508266

Report No : 6508-1814

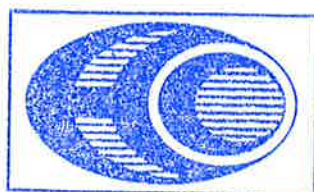
## TEST REPORT

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 : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 11/08/2022-18/08/2022  
Sample No. : W 65081020  
Sampling Date : 10/08/2022  
Sampling Time : 9:15 AM  
Received Date : 11/08/2022  
Reported Date : 22/08/2022

Parameter	Unit	Method	Result
Chloride	mg/l as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	146
Formaldehyde	mg/l	Distillation, Colorimetric Method	0.01
Oil and Grease	mg/l	Partition-Gravimetric Method (SM:5520B)	0.5

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. 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 (๖-003-๖-5637)  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



( Miss Apiradee Chuen-arom )

22 / 08 / 2022

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

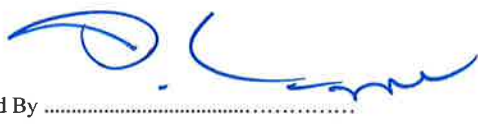
Customer : PTT Global Chemical Public Company Limited Branch 16\*\*  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\* Sample No. : W 65081491  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 17/08/2022\*\*  
Sampling By : ETC\*\* Sampling Time : 9:15 AM\*\*  
Sampling Method : Grab\*\* Received Date : 18/08/2022  
Tested Date : 18/08/2022-24/08/2022 Reported Date : 29/08/2022

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	63
pH (on site) *		Electrometric Method	7.9
Temperature *	°C	Laboratory and Field Method	31
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 Miss Pornpinan Viriyakusolkul (จ-003-จ-8334)\*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By   
( Miss Apiradee Chuen-arom )  
(จ-003-จ-4377)  
29 / 08 / 2022



Approved By   
( Mr. Kawee Suthasub )  
(จ-003-จ-2205)  
29 / 08 / 2022

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6508403

Report No : 6508-1898

## 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 : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 18/08/2022-24/08/2022  
Sample No. : W 65081491  
Sampling Date : 17/08/2022  
Sampling Time : 9:15 AM  
Received Date : 18/08/2022  
Reported Date : 29/08/2022

Parameter	Unit	Method	Result
Chloride	mg/l as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	155
Formaldehyde	mg/l	Distillation, Colorimetric Method	0.09
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 Miss Pornpinan Viriyakusolkul (ว-003-จ-8334)  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

( Miss Apiradee Chuen-arom)

29 / 08 / 2022


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 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 65081859  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 24/08/2022\*\*  
Sampling By : ETC\*\* Sampling Time : 9:45 AM\*\*  
Sampling Method : Grab\*\* Received Date : 25/08/2022  
Tested Date : 25/08/2022 -- 30/08/2022 Reported Date : 01/09/2022

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	50
pH (on site) *		Electrometric Method	7.4
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. 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-ก-4377)  
01 / 09 / 2022



Approved By   
( Mr. Kawee Suthasub )  
(จ-003-ก-2205)  
01 / 09 / 2022

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6508523

Report No : 6509-0085

## TEST REPORT

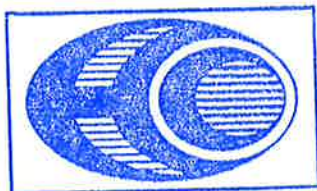
Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 25/08/2022 – 30/08/2022

Sample No. : W 65081859  
Sampling Date : 24/08/2022  
Sampling Time : 9:45 AM  
Received Date : 25/08/2022  
Reported Date : 01/09/2022

Parameter	Unit	Method	Result
Chloride	mg/l as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	160
Formaldehyde	mg/l	Distillation, Colorimetric Method	0.05
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 (๖-003-๓-7280)  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

( Miss Apiradee Chuen-arom)

01 / 09 / 2022

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 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 65090010  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 31/08/2022\*\*  
Sampling By : ETC\*\* Sampling Time : 9:20 AM\*\*  
Sampling Method : Grab\*\* Received Date : 01/09/2022  
Tested Date : 01/09/2022-08/09/2022 Reported Date : 10/09/2022

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	52
pH (on site) *		Electrometric Method	7.1
Temperature *	°C	Laboratory and Field Method	34
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. Supharerk Phatklang (จ-003-จ-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-ค-4377)  
10 / 09 / 2022



บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Approved By.....  
( Mr. Kawee Suthasub )

(จ-003-ค-2205)  
10 / 09 / 2022

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



Request No : W6509004

Report No : 6509-0688

## TEST REPORT

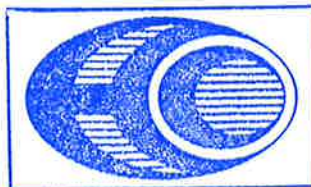
Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
Amphur Muang Rayong, Rayong 21150

Sampling Source : EOEG Plant Sample No. : W 65090010  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit Sampling Date : 31/08/2022  
Sampling By : ETC Sampling Time : 9:20 AM  
Sampling Method : Grab Received Date : 01/09/2022  
Tested Date : 01/09/2022-08/09/2022 Reported Date : 10/09/2022

Parameter	Unit	Method	Result
Chloride	mg/l as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	130
Formaldehyde	mg/l	Distillation, Colorimetric Method	0.09
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 Fornaldehyde = 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 / 09 / 2022

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



## EASTERN THAI CONSULTING 1992 CO., LTD.

683 Moo 11 Sukhapiarn 8 Rd., Nongkham, Sriracha, Chonburi 20230  
Tel. 0-3848-1197-8, 0-3876-3031-2 Fax : 0-3848-2095 E-mail : marketing@etc1992.com



TESTING  
No.0159

Request No : W6509214

Report No : 6509-1528

### 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 65090885  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 07/09/2022\*\*  
Sampling By : ETC\*\* Sampling Time : 10:05 AM\*\*  
Sampling Method : Grab\*\* Received Date : 08/09/2022  
Tested Date : 08/09/2022 – 20/09/2022 Reported Date : 20/09/2022

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	54
pH (on site) *		Electrometric Method	7.3
Temperature *	°C	Laboratory and Field Method	30
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 Miss Pornpinan Viriyakusolkul (จ-003-จ-8334)

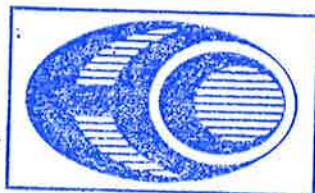
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By

( Miss Apiradee Chuen-arom )

(จ-003-ค-4377)

20 / 09 / 2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

( Mr. Kawee Suthasub )

(จ-003-ค-2205)

20 / 09 / 2022

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

Request No : W6509214

Report No : 6509-1528

## 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 65090885  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit Sampling Date : 07/09/2022  
Sampling By : ETC Sampling Time : 10:05 AM  
Sampling Method : Grab Received Date : 08/09/2022  
Tested Date : 08/09/2022 – 20/09/2022 Reported Date : 20/09/2022

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)	0.2

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 Miss Pornpinan Viriyakusolkul (ว-003-จ-8334)  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



( Miss Apiradee Chuen-arom )

20 / 09 / 2022

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ACCREDITED  
ISO 9001 / ISO 14001

## EASTERN THAI CONSULTING 1992 CO., LTD.

683 Moo 11 Sukhapibarn 8 Rd., Nongkham, Sriracha, Chonburi 20230

Tel. 0-3848-1197-8, 0-3876-3031-2 Fax : 0-3848-2095 E-mail : marketing@etc1992.com



TESTING  
No.0159

Request No : W6509363

Report No : 6509-2143

### 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 65091469  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 14/09/2022\*\*  
Sampling By : ETC\*\* Sampling Time : 10:00 AM\*\*  
Sampling Method : Grab\*\* Received Date : 15/09/2022  
Tested Date : 15/09/2022 – 27/09/2022 Reported Date : 27/09/2022

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	51
pH (on site) *		Electrometric Method	7.8
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 / Mr. Kawee Suthasub is Technical Management.

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

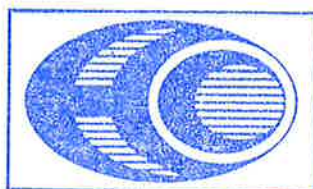
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By

( Miss Apiradee Chuen-arom )

(ว-003-ค-4377)

27 / 09 / 2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

( Mr. Kawee Suthasub )

(ว-003-ค-2205)

27 / 09 / 2022

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6509363

Report No : 6509-2143

## TEST REPORT

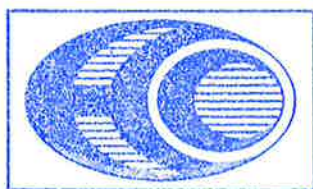
Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut,  
Amphur Muang Rayong, Rayong 21150

Sampling Source : EOEG Plant Sample No. : W 65091469  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit Sampling Date : 14/09/2022  
Sampling By : ETC Sampling Time : 10:00 AM  
Sampling Method : Grab Received Date : 15/09/2022  
Tested Date : 15/09/2022 – 27/09/2022 Reported Date : 27/09/2022

Parameter	Unit	Method	Result
Chloride	mg/l as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	120
Formaldehyde	mg/l	Distillation, Colorimetric Method	0.03
Oil and Grease	mg/l	Partition-Gravimetric Method (SM:5520B)	0.7

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 Mr. Songpon Phiwuan (ว-003-ค-7279)  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทย คอนซัลติ้ง 1992 จำกัด

Examined By.....

( Miss Apiradee Chuen-arom )

27 / 09 / 2022

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**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 65091850  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 21/09/2022\*\*  
Sampling By : ETC\*\* Sampling Time : 9:40 AM\*\*  
Sampling Method : Grab\*\* Received Date : 22/09/2022  
Tested Date : 22/09/2022 – 27/09/2022 Reported Date : 30/09/2022

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	57
pH (on site) *		Electrometric Method	8.0
Temperature *	°C	Laboratory and Field Method	32
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. Parkpoom Buasawad (จ-003-ค-7280) \*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

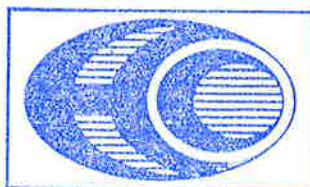
Examined By



( Miss Apiradee Chuen-arom )

(จ-003-ค-4377)

30 / 09 / 2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By



( Mr. Kawee Suthasub )

(จ-003-ค-2205)

30 / 09 / 2022

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Request No : W6509495

Report No : 6509-2144

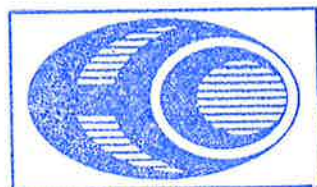
## TEST REPORT

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 65091850  
 Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit Sampling Date : 21/09/2022  
 Sampling By : ETC Sampling Time : 9:40 AM  
 Sampling Method : Grab Received Date : 22/09/2022  
 Tested Date : 22/09/2022 – 27/09/2022 Reported Date : 30/09/2022

Parameter	Unit	Method	Result
Chloride	mg/l as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	149
Formaldehyde	mg/l	Distillation, Colorimetric Method	0.02
Oil and Grease	mg/l	Partition-Gravimetric Method (SM:5520B)	0.4

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



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

( Miss Apiradee Chuen-arom )

30 / 09 / 2022

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**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 65092204  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 28/09/2022\*\*  
Sampling By : ETC\*\* Sampling Time : 9:45 AM\*\*  
Sampling Method : Grab\*\* Received Date : 29/09/2022  
Tested Date : 29/09/2022 – 04/10/2022 Reported Date : 06/10/2022

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	57
pH (on site) *		Electrometric Method	7.6
Temperature *	°C	Laboratory and Field Method	30
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-ค-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-ค-4377)  
06 / 10 / 2022



Approved By   
( Mr. Kawee Suthasub )  
(จ-003-ค-2205)  
06 / 10 / 2022

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Request No : W6509602

Report No : 6510-0273

## 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 65092204  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit Sampling Date : 28/09/2022  
Sampling By : ETC Sampling Time : 9:45 AM  
Sampling Method : Grab Received Date : 29/09/2022  
Tested Date : 29/09/2022 – 04/10/2022 Reported Date : 06/10/2022

Parameter	Unit	Method	Result
Chloride	mg/l as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	134
Formaldehyde	mg/l	Distillation, Colorimetric Method	0.47
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. Songpon Phiwuan (๓-003-ค-7279)  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



( Miss Apiradee Chuen-arom )

06 / 10 / 2022

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**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 65100550  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 05/10/2022\*\*  
Sampling By : ETC\*\* Sampling Time : 9:35 AM\*\*  
Sampling Method : Grab\*\* Received Date : 06/10/2022  
Tested Date : 06/10/2022 – 14/10/2022 Reported Date : 15/10/2022

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	51
pH (on site) *		Electrometric Method	7.7
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.

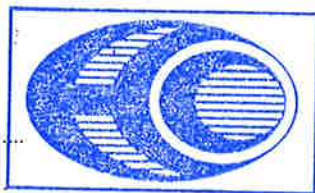
3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Parkpoom Buasawad (จ-003-ค-7280)\*

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)

15 / 10 / 2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By   
( Mr. Kawee Suthasub )

(จ-003-ค-2205)

15 / 10 / 2022

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Request No : W6510134

Report No : 6510-0926

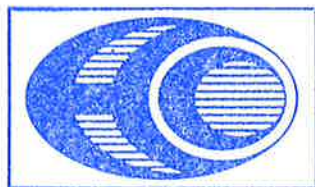
## TEST REPORT

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 : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 06/10/2022 – 14/10/2022  
Sample No. : W 65100550  
Sampling Date : 05/10/2022  
Sampling Time : 9:35 AM  
Received Date : 06/10/2022  
Reported Date : 15/10/2022

Parameter	Unit	Method	Result
Chloride	mg/l as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	149
Formaldehyde	mg/l	Distillation, Colorimetric Method	0.03
Oil and Grease	mg/l	Partition-Gravimetric Method (SM:5520B)	0.8

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. 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-ก-7280)  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



( Miss Apiradee Chuen-arom )

15 / 10 / 2022

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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## EASTERN THAI CONSULTING 1992 CO., LTD.

683 Moo 11 Sukhapibarn 8 Rd., Nongkham, Sriracha, Chonburi 20230  
Tel. 0-3848-1197-8, 0-3876-3031-2 Fax : 0-3848-2095 E-mail : marketing@etc1992.com



TESTING  
No.0159

Request No : W6510348

Report No : 6510-1416

### 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 65101321  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 12/10/2022\*\*  
Sampling By : ETC\*\* Sampling Time : 9:20 AM\*\*  
Sampling Method : Grab\*\* Received Date : 14/10/2022  
Tested Date : 14/10/2022 – 20/10/2022 Reported Date : 25/10/2022

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	51
pH (on site) *		Electrometric Method	7.6
Temperature *	°C	Laboratory and Field Method	29
Total Suspended Solids #	mg/l	Dried at 103-105 °C (SM:2540 D)	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. # = 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 Miss Pornpinan Viriyakusolkul (จ-003-จ-8334)\*  
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)

25 / 10 / 2022



บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Approved By

( Mr. Kawee Suthasub )

(จ-003-ค-2205)

25 / 10 / 2022

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Request No : W6510348

Report No : 6510-1416

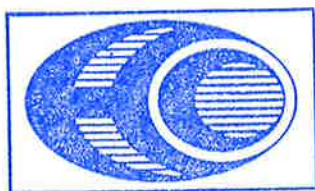
## TEST REPORT

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 65101321  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit Sampling Date : 12/10/2022  
Sampling By : ETC Sampling Time : 9:20 AM  
Sampling Method : Grab Received Date : 14/10/2022  
Tested Date : 14/10/2022 – 20/10/2022 Reported Date : 25/10/2022

Parameter	Unit	Method	Result
Chloride	mg/l as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	113
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 :
- 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 (๖-003-๓-8334)
  - Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

( Miss Apiradee Chuen-arom )

25 / 10 / 2022

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 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 65101635  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 19/10/2022\*\*  
Sampling By : ETC\*\* Sampling Time : 9:50 AM\*\*  
Sampling Method : Grab\*\* Received Date : 20/10/2022  
Tested Date : 20/10/2022 – 27/10/2022 Reported Date : 28/10/2022

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	45
pH (on site) *		Electrometric Method	6.7
Temperature *	°C	Laboratory and Field Method	30
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 / Mr. Kawee Suthasub is Technical Management.

3. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Songpon Phiwuan (จ-003-ค-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-ค-4377)

28 / 10 / 2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By .....

( Mr. Kawee Suthasub )

(จ-003-ค-2205)

28 / 10 / 2022

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6510454

Report No : 6510-1820

## TEST REPORT

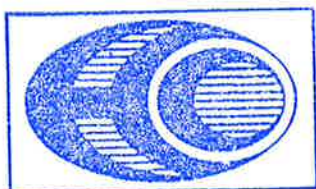
Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 20/10/2022 – 27/10/2022

Sample No. : W 65101635  
Sampling Date : 19/10/2022  
Sampling Time : 9:50 AM  
Received Date : 20/10/2022  
Reported Date : 28/10/2022

Parameter	Unit	Method	Result
Chloride	mg/l as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	69.0
Formaldehyde	mg/l	Distillation, Colorimetric Method	0.02
Oil and Grease	mg/l	Partition-Gravimetric Method (SM:5520B)	0.5

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. 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 Fornaldehyde = 0.20 mg/l ]  
4. LOQ = Level of Quantitation [LOQ of Oil and Grease = 3.0 mg/l ]  
5. Sampling By Mr. Songpon Phiwan (ว-003-ก-7279)  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



( Miss Apiradee Chuen-arom )

28 / 10 / 2022

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 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 : 27/10/2022 – 03/11/2022

Sample No. : W 65101987  
Sampling Date : 26/10/2022\*\*  
Sampling Time : 9:40 AM\*\*  
Received Date : 27/10/2022  
Reported Date : 04/11/2022


Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	64
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)	< 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. Supharerk Phatklang (จ-003-จ-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-ค-4377)  
04 / 11 / 2022



Approved By   
( Mr. Kawee Suthasub )  
(จ-003-ค-2205)  
04 / 11 / 2022

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6510565

Report No : 6511-0366

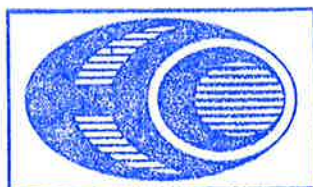
## TEST REPORT

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 : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 27/10/2022 – 03/11/2022  
Sample No. : W 65101987  
Sampling Date : 26/10/2022  
Sampling Time : 9:40 AM  
Received Date : 27/10/2022  
Reported Date : 04/11/2022

Parameter	Unit	Method	Result
Chloride	mg/l as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	128
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 Mr. Supharerk Phatklang (๖-003-๖-5637)  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

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

04 / 11 / 2022

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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**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 65110349  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 02/11/2022\*\*  
Sampling By : ETC\*\* Sampling Time : 9:30 AM\*\*  
Sampling Method : Grab\*\* Received Date : 03/11/2022  
Tested Date : 03/11/2022 – 10/11/2022 Reported Date : 14/11/2022

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	55
pH (on site) *		Electrometric Method	7.5
Temperature *	°C	Laboratory and Field Method	31
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-จ-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-ค-4377)

14 / 11 / 2022



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Approved By



( Mr. Kawee Suthasub )

(จ-003-ค-2205)

14 / 11 / 2022

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6511078

Report No : 6511-1010

## 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 65110349  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit Sampling Date : 02/11/2022  
Sampling By : ETC Sampling Time : 9:30 AM  
Sampling Method : Grab Received Date : 03/11/2022  
Tested Date : 03/11/2022 – 10/11/2022 Reported Date : 14/11/2022

Parameter	Unit	Method	Result
Chloride	mg/l as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	121
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 Fornaldehyde = 0.20 mg/l ]  
4. LOQ = Level of Quantitation [LOQ of Oil and Grease = 3.0 mg/l ]  
5. Sampling By Mr. Supharerk Phatklang (ว-003-จ-5637)  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด



Examined By.....

( Miss Apiradee Chuen-arom )

14 / 11 / 2022

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**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 65111000  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 09/11/2022\*\*  
Sampling By : ETC\*\* Sampling Time : 9:35 AM\*\*  
Sampling Method : Grab\*\* Received Date : 10/11/2022  
Tested Date : 10/11/2022 – 17/11/2022 Reported Date : 18/11/2022

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	51
pH (on site) *		Electrometric Method	7.5
Temperature *	°C	Laboratory and Field Method	32
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. 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)  
18 / 11 / 2022



Approved By   
( Mr. Kawee Suthasub )  
(ว-003-ค-2205)  
18 / 11 / 2022

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Request No : W6511259

Report No : 6511-1387

## 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 65111000  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit Sampling Date : 09/11/2022  
Sampling By : ETC Sampling Time : 9:35 AM  
Sampling Method : Grab Received Date : 10/11/2022  
Tested Date : 10/11/2022 – 17/11/2022 Reported Date : 18/11/2022

Parameter	Unit	Method	Result
Chloride	mg/l as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	116
Formaldehyde	mg/l	Distillation, Colorimetric Method	0.01
Oil and Grease	mg/l	Partition-Gravimetric Method (SM:5520B)	0.2

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 (๖-003-๓-7280)  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

( Miss Apiradee Chuen-arom)

18 / 11 / 2022


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**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 65111449  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 16/11/2022\*\*  
Sampling By : ETC\*\* Sampling Time : 9:25 AM\*\*  
Sampling Method : Grab\*\* Received Date : 17/11/2022  
Tested Date : 17/11/2022 – 22/11/2022 Reported Date : 25/11/2022

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	55
pH (on site) *		Electrometric Method	7.7
Temperature *	°C	Laboratory and Field Method	28
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 Phiwuan (ว-003-ก-7279)\*  
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-4377)  
25 / 11 / 2022



Approved By   
( Mr. Kawee Suthasub )  
(ว-003-ก-2205)  
25 / 11 / 2022

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6511422

Report No : 6511-1962

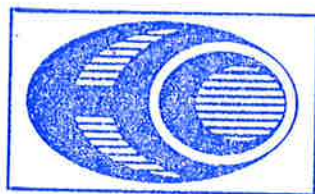
## TEST REPORT

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 65111449  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit Sampling Date : 16/11/2022  
Sampling By : ETC Sampling Time : 9:25 AM  
Sampling Method : Grab Received Date : 17/11/2022  
Tested Date : 17/11/2022 – 22/11/2022 Reported Date : 25/11/2022

Parameter	Unit	Method	Result
Chloride	mg/l as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	131
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 Mr. Songpon Phiwan (๖-003-๓-7279)  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด



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

25 / 11 / 2022


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 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 65111853  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 23/11/2022\*\*  
Sampling By : ETC\*\* Sampling Time : 9:50 AM\*\*  
Sampling Method : Grab\*\* Received Date : 24/11/2022  
Tested Date : 24/11/2022 – 30/11/2022 Reported Date : 02/12/2022

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	45
pH (on site) *		Electrometric Method	7.6
Temperature *	°C	Laboratory and Field Method	32
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 Phiwan (จ-003-ค-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-ค-4377)  
02 / 12 / 2022



Approved By:   
( Mr. Kawee Suthasub )  
(จ-003-ค-2205)  
02 / 12 / 2022

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

Request No : W6511548

Report No : 6511-2240

## 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 : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 24/11/2022 – 30/11/2022  
Sample No. : W 65111853  
Sampling Date : 23/11/2022  
Sampling Time : 9:50 AM  
Received Date : 24/11/2022  
Reported Date : 02/12/2022

Parameter	Unit	Method	Result
Chloride	mg/l as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	117
Formaldehyde	mg/l	Distillation, Colorimetric Method	0.04
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 :  
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 (๓-003-๓-7279)  
6. Sampling at UTM 47 P 730914 E 1404772 N



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Examined By.....

( Miss Apiradee Chuen-arom )

02 / 12 / 2022

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WITHOUT THE WRITTEN APPROVAL LABORATORY



**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 : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\*  
Sampling By : ETC\*\*  
Sampling Method : Grab\*\*  
Tested Date : 01/12/2022 – 07/12/2022

Sample No. : W 65120003  
Sampling Date : 30/11/2022\*\*  
Sampling Time : 9:25 AM\*\*  
Received Date : 01/12/2022  
Reported Date : 08/12/2022


Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	48
pH (on site) *		Electrometric Method	7.1
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 Phiwan (จ-003-ค-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-ค-4377)  
08 / 12 / 2022



Approved By   
( Mr. Kawee Suthasub )  
(จ-003-ค-2205)  
08 / 12 / 2022

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6512003

Report No : 6512-0424

## 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 65120003  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit Sampling Date : 30/11/2022  
Sampling By : ETC Sampling Time : 9:25 AM  
Sampling Method : Grab Received Date : 01/12/2022  
Tested Date : 01/12/2022 – 07/12/2022 Reported Date : 08/12/2022

Parameter	Unit	Method	Result
Chloride	mg/l as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	106
Formaldehyde	mg/l	Distillation, Colorimetric Method	0.01
Oil and Grease	mg/l	Partition-Gravimetric Method (SM:5520B)	0.3

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 Fornaldehyde = 0.20 mg/l ]  
4. LOQ = Level of Quantitation [LOQ of Oil and Grease = 3.0 mg/l ]  
5. Sampling By Mr. Songpon Phiwuan (1-003-ค-7279)  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด


  
Examined By.....

( Miss Apiradee Chuen-arom )

08 / 12 / 2022

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**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 : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\*  
Sampling By : ETC\*\*  
Sampling Method : Grab\*\*  
Tested Date : 08/12/2022 – 15/12/2022

Sample No. : W 65120798  
Sampling Date : 07/12/2022\*\*  
Sampling Time : 10:30 AM\*\*  
Received Date : 08/12/2022  
Reported Date : 19/12/2022


Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	45
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)	< 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 / 12 / 2022



Approved By   
( Mr. Kawee Suthasub )  
(จ-003-ท-2205)  
19 / 12 / 2022

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6512208

Report No : 6512-1152

## 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 65120798  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit Sampling Date : 07/12/2022  
Sampling By : ETC Sampling Time : 10:30 AM  
Sampling Method : Grab Received Date : 08/12/2022  
Tested Date : 08/12/2022 – 15/12/2022 Reported Date : 19/12/2022

Parameter	Unit	Method	Result
Chloride	mg/l as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	131
Formaldehyde	mg/l	Distillation, Colorimetric Method	0.01
Oil and Grease	mg/l	Partition-Gravimetric Method (SM:5520B)	0.4

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 (๖-003-๓-7279)  
6. Sampling at UTM 47 P 730914 E 1404772 N



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

19 / 12 / 2022

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REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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**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 65121352  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 14/12/2022\*\*  
Sampling By : ETC\*\* Sampling Time : 9:30 AM\*\*  
Sampling Method : Grab\*\* Received Date : 15/12/2022  
Tested Date : 15/12/2022 – 21/12/2022 Reported Date : 23/12/2022

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	52
pH (on site) *		Electrometric Method	7.3
Temperature *	°C	Laboratory and Field Method	28
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 Miss Pornpinan Viriyakusolkul (จ-003-ท-8334)\*  
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

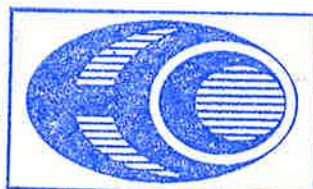
Examined By



( Miss Apiradee Chuen-arom )

(จ-003-ท-4377)

23 / 12 / 2022



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Approved By



( Mr. Kawee Suthasub )

(จ-003-ท-2205)

23 / 12 / 2022

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Request No : W6512382

Report No : 6512-1682

## TEST REPORT

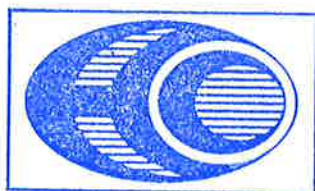
Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150  
Sampling Source : EOEG Plant  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 15/12/2022 – 21/12/2022

Sample No. : W 65121352  
Sampling Date : 14/12/2022  
Sampling Time : 9:30 AM  
Received Date : 15/12/2022  
Reported Date : 23/12/2022

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	0.20
Oil and Grease	mg/l	Partition-Gravimetric Method (SM:5520B)	0.2

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 Fornaldehyde = 0.20 mg/l ]  
4. LOQ = Level of Quantitation [LOQ of Oil and Grease = 3.0 mg/l ]  
5. Sampling By Miss Pornpinan Viriyakusolkul (๖-003-๖-8334)  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

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

23 / 12 / 2022


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 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 65121812  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit\*\* Sampling Date : 21/12/2022\*\*  
Sampling By : ETC\*\* Sampling Time : 9:00 AM\*\*  
Sampling Method : Grab\*\* Received Date : 22/12/2022  
Tested Date : 22/12/2022 – 28/12/2022 Reported Date : 03/01/2023

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	51
pH (on site) *		Electrometric Method	7.1
Temperature *	°C	Laboratory and Field Method	29
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. 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-ก-4377)  
03 / 01 / 2023



Approved By   
( Mr. Kawee Suthasub )  
(จ-003-ก-2205)  
03 / 01 / 2023

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WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No : W6512537

Report No : 6601-0019

## 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 65121812  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit Sampling Date : 21/12/2022  
Sampling By : ETC Sampling Time : 9:00 AM  
Sampling Method : Grab Received Date : 22/12/2022  
Tested Date : 22/12/2022 – 28/12/2022 Reported Date : 03/01/2023

Parameter	Unit	Method	Result
Chloride	mg/l as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	122
Formaldehyde	mg/l	Distillation, Colorimetric Method	0.42
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 Fomnaldehyde = 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



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



( Miss Apiradee Chuen-arom )

03 / 01 / 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 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 : 29/12/2022 – 04/01/2023

Sample No. : W 65122063  
Sampling Date : 28/12/2022\*\*  
Sampling Time : 9:40 AM\*\*  
Received Date : 29/12/2022  
Reported Date : 05/01/2023

Parameter	Unit	Method	Result
Chemical Oxygen Demand #	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	48
pH (on site) *		Electrometric Method	7.3
Temperature *	°C	Laboratory and Field Method	30
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 / Mrs. Wanpen Lhaochindawat is Technical Management.

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

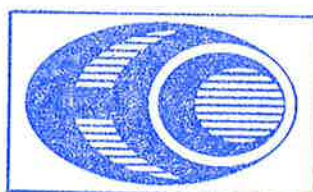
4. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 730914 E 1404772 N

Examined By 

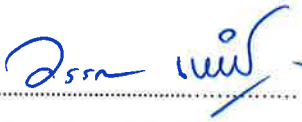
( Miss Apiradee Chuen-arom )

(จ-003-ค-4377)

05 / 01 / 2023



บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Approved By 

( Mrs. Wanpen Lhaochindawat )

(จ-003-ค-2183)

05 / 01 / 2023

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

Request No : W6512629

Report No : 6601-0266

## 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 65122063  
Sample Name : น้ำทิ้งของโครงการที่ระบายจาก Waste Water Holding Pit Sampling Date : 28/12/2022  
Sampling By : ETC Sampling Time : 9:40 AM  
Sampling Method : Grab Received Date : 29/12/2022  
Tested Date : 29/12/2022 – 04/01/2023 Reported Date : 05/01/2023

Parameter	Unit	Method	Result
Chloride	mg/l as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	123
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 Mr. Songpon Phiwan (ว-003-ก-7279)  
6. Sampling at UTM 47 P 730914 E 1404772 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



( Miss Apiradee Chuen-arom )

05 / 01 / 2023

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



Request No : W6507263

Report No : 6507-1431

## 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 65071008  
Sample Name : จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสียของนิคม WHA Sampling Date : 08/07/2022  
Sampling By : Customer Sampling Time : 2:35 PM  
Sampling Method : Grab Received Date : 09/07/2022  
Tested Date : 09/07/2022 – 16/07/2022 Reported Date : 20/07/2022

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Biochemical Oxygen Demand	mg/l	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	2.1	≤ 500
Chemical Oxygen Demand	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	57	≤ 750
Chloride	mg/l as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	151	-
Formaldehyde	mg/l	Distillation, Colorimetric Method	0.02	≤ 1
Oil and Grease	mg/l	Partition-Gravimetric Method (SM:5520B)	0.9	≤ 10
pH		Electrometric Method (SM:4500 -H +B)	7.4	5.5-9.0
Temperature	°C	Laboratory and Field Method	35	≤ 45
Total Dissolved Solids	mg/l	Dried at 180 °C (SM:2540C)	704	≤ 3,000
Total Suspended Solids	mg/l	Dried at 103-105 °C (SM:2540 D)	5	≤ 200

Physical Apperance : 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)

20 / 07 / 2022

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6508210

Report No : 6508-1611

## TEST REPORT

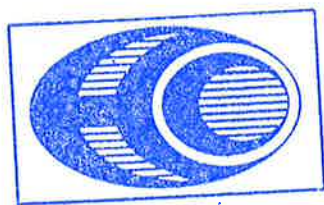
Customer : PTT Global Chemical Public Company Limited Branch 16  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150

Sampling Source : EOEG Plant Sample No. : W 65080843  
Sample Name : จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสียของนิคม WHA Sampling Date : 08/08/2022  
Sampling By : Customer Sampling Time : 3:05 PM  
Sampling Method : Grab Received Date : 09/08/2022  
Tested Date : 09/08/2022 – 20/08/2022 Reported Date : 23/08/2022

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Biochemical Oxygen Demand	mg/l	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	6.4	≤ 500
Chemical Oxygen Demand	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	50	≤ 750
Chloride	mg/l as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	162	-
Formaldehyde	mg/l	Distillation, Colorimetric Method	0.01	≤ 1
Oil and Grease	mg/l	Partition-Gravimetric Method (SM:5520B)	0.1	≤ 10
pH (on site)		Electrometric Method	7.7	5.5-9.0
Temperature	°C	Laboratory and Field Method	28	≤ 45
Total Dissolved Solids	mg/l	Dried at 180 °C (SM:2540C)	688	≤ 3,000
Total Suspended Solids	mg/l	Dried at 103-105 °C (SM:2540 D)	6	≤ 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 )

23 / 08 / 2022

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Request No : W6509239

Report No : 6509-1357

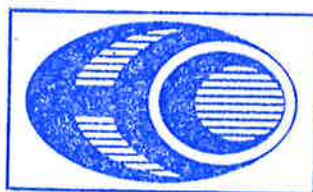
## TEST REPORT

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 65090966  
Sample Name : จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสียของนิคม WHA Sampling Date : 08/09/2022  
Sampling By : Customer Sampling Time : 10:27 AM  
Sampling Method : Grab Received Date : 09/09/2022  
Tested Date : 09/09/2022 – 16/09/2022 Reported Date : 20/09/2022

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Biochemical Oxygen Demand	mg/l	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	3.4	≤ 500
Chemical Oxygen Demand	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	54	≤ 750
Chloride	mg/l as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	159	-
Formaldehyde	mg/l	Distillation, Colorimetric Method	0.07	≤ 1
Oil and Grease	mg/l	Partition-Gravimetric Method (SM:5520B)	0.9	≤ 10
pH (on site)		Electrometric Method	7.6	5.5-9.0
Temperature	°C	Laboratory and Field Method	26	≤ 45
Total Dissolved Solids	mg/l	Dried at 180 °C (SM:2540C)	1,416	≤ 3,000
Total Suspended Solids	mg/l	Dried at 103-105 °C (SM:2540 D)	< 5	≤ 200

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. /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 )

20 / 09 / 2022

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Request No : W6510179

Report No : 6510-1389

## 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 65100736  
Sample Name : จุดปล่อยน้ำทิ้งลงที่รวบรวมน้ำเสียของนิคม WHA Sampling Date : 06/10/2022  
Sampling By : Customer Sampling Time : 2:55 PM  
Sampling Method : Grab Received Date : 07/10/2022  
Tested Date : 07/10/2022 – 18/10/2022 Reported Date : 18/10/2022

Parameter	Unit	Method	Result	Standard <sup>1/</sup>
Biochemical Oxygen Demand	mg/l	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	10.1	≤ 500
Chemical Oxygen Demand	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	45	≤ 750
Chloride	mg/l as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	132	-
Formaldehyde	mg/l	Distillation, Colorimetric Method	0.01	≤ 1
Oil and Grease	mg/l	Partition-Gravimetric Method (SM:5520B)	0.1	≤ 10
pH (on site)		Electrometric Method	6.9	5.5-9.0
Temperature	°C	Laboratory and Field Method	31	≤ 45
Total Dissolved Solids	mg/l	Dried at 180 °C (SM:2540C)	616	≤ 3,000
Total Suspended Solids	mg/l	Dried at 103-105 °C (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 / 10 / 2022

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6511288

Report No : 6511-1621

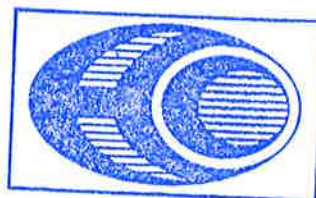
## TEST REPORT

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 : จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสียของนิคม WHA  
Sampling By : Customer  
Sampling Method : Grab  
Tested Date : 11/11/2022 - 18/11/2022  
Sample No. : W 65111075  
Sampling Date : 10/11/2022  
Sampling Time :  
Received Date : 11/11/2022  
Reported Date : 21/11/2022

Parameter	Unit	Method	Result	Standard <sup>1)</sup>
Biochemical Oxygen Demand	mg/l	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	2.5	≤ 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)	122	-
Formaldehyde	mg/l	Distillation, Colorimetric Method	0.03	≤ 1
Oil and Grease	mg/l	Partition-Gravimetric Method (SM:5520B)	1.0	≤ 10
pH (on site)		Electrometric Method	7.1	5.5-9.0
Temperature	°C	Laboratory and Field Method	34	≤ 45
Total Dissolved Solids	mg/l	Dried at 180 °C (SM:2540C)	592	≤ 3,000
Total Suspended Solids	mg/l	Dried at 103-105 °C (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 )

21 / 11 / 2022

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Request No : W6512253

Report No : 6512-1283

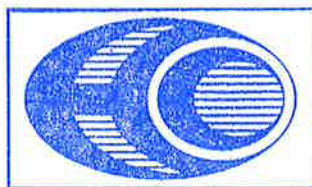
## TEST REPORT

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 : จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสียของนิคม WHA  
Sampling By : Customer  
Sampling Method : Grab  
Tested Date : 09/12/2022 – 16/12/2022  
Sample No. : W 65120948  
Sampling Date : 08/12/2022  
Sampling Time : --  
Received Date : 09/12/2022  
Reported Date : 20/12/2022

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Biochemical Oxygen Demand	mg/l	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	7.7	≤ 500
Chemical Oxygen Demand	mg/l	Closed Reflux, Titrimetric Method (SM:5220C)	61	≤ 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)	0.4	≤ 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 °C (SM:2540C)	694	≤ 3,000
Total Suspended Solids	mg/l	Dried at 103-105 °C (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 )

20 / 12 / 2022

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 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 : จุคปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสีย ###

Sampling By : ETC\*\*

Sampling Method : Grab\*\*

Tested Date : 01/12/2022 – 09/12/2022

Sample No. : W 65120004

Sampling Date : 30/11/2022\*\*

Sampling Time : 9:40 AM\*\*

Received Date : 01/12/2022

Reported Date : 12/12/2022

Parameter	Unit	Method	Result	Standard <sup>1/</sup>
Arsenic *	mg/l	Digestion, Inductively Coupled Plasma Method	< 0.10	≤ 0.25
Barium @	mg/l	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.17	≤ 1
Color (Original) *	ADMI	ADMI Weighted Ordinate Spectrophotometric Method (SM:2120F)	< 20	≤ 600
Color (pH 7.0) *	ADMI	ADMI Weighted Ordinate Spectrophotometric Method (SM:2120F)	< 20	≤ 600
Free Chlorine *	mg/l as Cl <sub>2</sub>	Iodometric Method (SM:4500 -Cl B)	< 0.5	≤ 1
Manganese @	mg/l	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.11	≤ 5

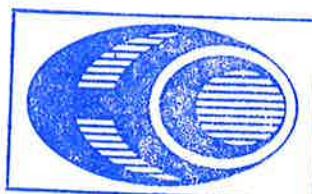
Physical Apperance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L (3 Bottle) , PE 1.0 L , PE 1.8 L, G 1.0 L, G 2.5 L ]

Remark : 1. /1 Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)  
2. @ = ISO/IEC 17025:2017 Accredited by TISI., SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. Miss Apiradee Chuen-arom is Section Head / Mr. Kawee Suthasub is Technical Management.  
4. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Songpon Phiwan (จ-003-ค-7279)\*  
5 \*\* = These data are non laboratory data. / Sampling at UTM 47 P 0730729 E 1404613 N  
6. ## จุคปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสียของนิคมอุตสาหกรรม ดับบลิวเอชเอ ตะวันออก (มาบตาพุด)


Examined By   
( Miss Apiradee Chuen-arom )

(จ-003-ค-4377)

12 / 12 / 2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By   
( Mr. Kawee Suthasub )

( จ-003-ค-2205 )

12 / 12 / 2022

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**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 : จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสีย ###  
Sampling By : ETC\*\*  
Sampling Method : Grab\*\*  
Tested Date : 01/12/2022 – 09/12/2022  
Sample No. : W 65120004  
Sampling Date : 30/11/2022\*\*  
Sampling Time : 9:40 AM\*\*  
Received Date : 01/12/2022  
Reported Date : 12/12/2022


Parameter	Unit	Method	Result	Standard <sup>1</sup>
Mercury *	mg/l	Cold-Vapor Atomic Absorption Spectrometric Method (SM:3112B)	< 0.0010	≤ 0.005
Nickel @	mg/l	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.03	≤ 1
pH (on site) *		Electrometric Method	7.2	5.5-9.0
Phenol *	mg/l	Distillation, Direct Photometric Method (SM:5530B,D)	< 0.005	≤ 1
Temperature *	°C	Laboratory and Field Method	33	≤ 45
Total Kjeldahl Nitrogen *	mg/l as NH <sub>3</sub> -N	Macro Kjeldahl Method (SM:4500 -Norg B)	< 5	≤ 100
Zinc @	mg/l	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.54	≤ 5

Physical Appearance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L (3 Bottle) , PE 1.0 L , PE 1.8 L, G 1.0 L, G 2.5 L ]

Remark : 1. /1 Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)  
2. @ = ISO/IEC 17025:2017 Accredited by TISI., SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
3. Miss Apiradee Chuen-arom is Section Head / Mr. Kawee Suthasub is Technical Management.  
4. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Songpon Phiwan (ว-003-ค-7279)\*  
5. \*\* = These data are non laboratory data. / Sampling at UTM 47 P 0730729 E 1404613 N  
6. ## จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสียของนิคมอุตสาหกรรม ดับบลิวเอชเอ ตะวันออก (มาบตาพุด)

Examined By   
( Miss Apiradee Chuen-arom )  
( ว-003-ค-4377 )  
12 / 12 / 2022



Approved By   
( Mr. Kawee Suthasub )  
( ว-003-ค-2205 )  
12 / 12 / 2022

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

Request No : W6512004

Report No : 6512-0835

## 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 : จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสีย ##  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 01/12/2022 – 09/12/2022  
Sample No. : W 65120004  
Sampling Date : 30/11/2022  
Sampling Time : 9:40 AM  
Received Date : 01/12/2022  
Reported Date : 12/12/2022

Parameter	Unit	Method	Result	Standard <sup>1)</sup>
Fluoride	mg/l	Ion-Selective Electrode Method (SM:4500 -F- C)	0.88	≤ 5
Iron	mg/l	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	4.53	≤ 10
Surfactants	mg/l as MBAS	Anionic Surfactants as MBAS Method (SM:5540C)	< 0.40	≤ 30

Physical Apperance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L (3 Bottle) , PE 1.0 L , PE 1.8 L, G 1.0 L, G 2.5 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. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
4. Sampling By Mr. Songpon Phiwuan (ว-003-ค-7279)  
5. Sampling at UTM 47 P 0730729 E 1404613 N  
6. จุดปล่อยน้ำทิ้งลงท่อรวบรวมน้ำเสียของนิคมอุตสาหกรรม ดับบลิวเอชเอ ตะวันออก (มาบตาพุด)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

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

12 / 12 / 2022

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No. W6505268

Report No. 6506-0116

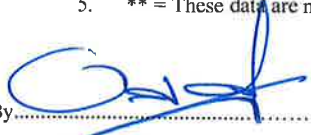
**TEST REPORT**

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\*\*  
Sampling Source : EOEG Plant\*\*  
Sample Name : บ่อสังกะการณ 1 (TOCGC MW01)\*\*  
Sampling By : ETC\*\*  
Sampling Method : Grab\*\*  
Tested Date : 12/05/2022 – 06/06/2022  
Sample No. : W 65051038  
Sampling Date : 11/05/2022\*\*  
Sampling Time : 09:25 AM\*\*  
Received Date : 12/05/2022  
Reported Date : 06/06/2022


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 @		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)	0.22	≤ 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. @ = 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, 2018  
3. Miss Apiradee Chuen-arom is Section Head / Mr. Kawee Suthasub is Technical Management.  
4. \* = Test Report/Sampling marked Not Accredited, Sampling By Miss Pompinan Viriyakusolkul (จ-003-จ-8334)\*  
5. \*\* = These data are non laboratory data. / Sampling At UTM 47 P 731078 E 1405208 N

Examined By   
( Miss Apiradee Chuen-arom )  
(จ-003-ค-4377)  
06 / 06 / 2022



Approved By   
( Mr. Kawee Suthasub )  
(จ-003-ค-2205)  
06 / 06 / 2022

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



Request No. W6505268

Report No. 6506-0116


**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\*\*  
Sampling Source : EOEG Plant\*\*  
Sample Name : บ่อสังเคราะห์ 1 (TOCGC MW01)\*\*  
Sampling By : ETC\*\*  
Sampling Method : Grab\*\*  
Tested Date : 12/05/2022 – 06/06/2022  
Sample No. : W 65051038  
Sampling Date : 11/05/2022\*\*  
Sampling Time : 09:25 AM\*\*  
Received Date : 12/05/2022  
Reported Date : 06/06/2022

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)	< 0.0050	≤ 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. @ = 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, 2018  
3. Miss Apiradee Chuen-arom is Section Head / Mr. Kawee Suthasub is Technical Management.  
4. \* = Test Report/Sampling marked Not Accredited, Sampling By Miss Pornpinan Viriyakusolkul (จ-003-จ-8334)\*  
5. \*\* = These data are non laboratory data. / Sampling At UTM 47 P 731078 E 1405208 N

Examined By   
( Miss Apiradee Chuen-arom )  
(จ-003-จ-4377)  
06 / 06 / 2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By   
( Mr. Kawee Suthasub )  
(จ-003-จ-2205)  
06 / 06 / 2022

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Request No. W6505268

Report No. 6506-0116

**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\*\*  
Sampling Source : EOEG Plant\*\*  
Sample Name : บ่อสังเคราะห์ 1 (TOCGC MW01)\*\*  
Sampling By : ETC\*\*  
Sampling Method : Grab\*\*  
Tested Date : 12/05/2022 – 06/06/2022

Sample No. : W 65051038  
Sampling Date : 11/05/2022\*\*  
Sampling Time : 09:25 AM\*\*  
Received Date : 12/05/2022  
Reported Date : 06/06/2022

Parameter	Unit	Method	Result	Standard <sup>/1</sup>
Boron *	mg/l	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.02	-
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)	8.45	-
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. @ = ISO/IEC 17025:2017 Accredited by TISI., SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2018  
4. Mr. Kawee Suthasub is Technical Management.  
5. \* = Test Report/Sampling marked Not Accredited, Sampling By Miss Pornpinan Viriyakusolkul (จ-003-จ-8334)\*  
6. \*\* = These data are non laboratory data. / Sampling At UTM 47 P 731078 E 1405208 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....  
( Mr. Kawee Suthasub )

06 / 06 / 2022

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Request No. W6505268

Report No. 6506-0116

## 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

Sampling Source : EOEG Plant Sample No. : W 65051038

Sample Name : บ่อสังเกตการณ์ 1 (TOCGC MW01) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 9:25 AM

Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 06/06/2022 Reported Date : 06/06/2022

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 Miss Pornpinan Viriyakusolkul (ว-003-จ-8334)

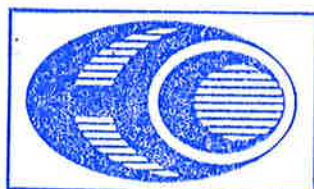
3. Sampling At UTM 47 P 731078 E 1405208 N

Examined By 

( Miss Apiradee Chuen-arom )

( ว-003-ค-4377 )

06/06/2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By 

( Mr. Kawee Suthasub )

( ว-003-ค-2205 )

06/06/2022

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY

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WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. W6505268

Report No. 6506-0116

## 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

Sampling Source : EOEG Plant Sample No. : W 65051038

Sample Name : บ่อสังเกตราน้ำ 1 (TOCGC MW01) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 9:25 AM

Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 06/06/2022 Reported Date : 06/06/2022

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
- 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
- Vinyl Chloride	mg/l	Purge-and-Trap/GC-MS	Not Detected	≤ 0.03
- Dichloromethane	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 Miss Pornpinan Viriyakusolkul (ว-003-จ-8334)

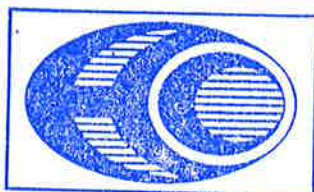
3. Sampling At UTM 47 P 731078 E 1405208 N

Examined By 

( Miss Apiradee Chuen-arom )

( ว-003-ค-4377 )

06/06/2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By 

( Mr. Kawee Suthasub )

( ว-003-ค-2205 )

06/06/2022

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Request No. W6505268

Report No. 6506-0116

## 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

Sampling Source : EOEG Plant Sample No. : W 65051038

Sample Name : บ่อสังเกตการณ์ 1 (TOCGC MW01) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 9:25 AM

Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 06/06/2022 Reported Date : 06/06/2022

Parameter	Unit	Method	Result	Standard <sup>1)</sup>
<b>Total Petroleum Hydrocarbons ***</b>				
- TPH (C <sub>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., (Miss Pornpinan Viriyakusolkul (๖-003-๖-8334))

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



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



( Miss Apiradee Chuen-arom )

06 / 06 / 2022

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

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Request No. W6505268

Report No. 6506-0117

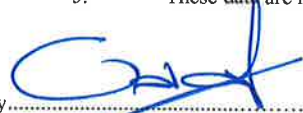
**TEST REPORT**

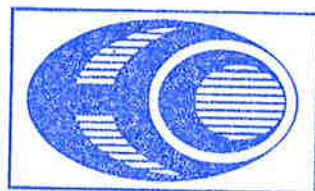
Customer	: GC Glycol Company Limited**	Sample No.	: W 65051039
Address	: 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150**	Sampling Date	: 11/05/2022**
Sampling Source	: EOEG Plant**	Sampling Time	: 11:40 AM**
Sample Name	: บ่อสังเคราะห์ 2 (TOCGC MW05)**	Received Date	: 12/05/2022
Sampling By	: ETC**	Reported Date	: 06/06/2022
Sampling Method	: Grab**		
Tested Date	: 12/05/2022 – 06/06/2022		

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 @		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)	0.20	≤ 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. @ = 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, 2018  
3. Miss Apiradee Chuen-arom is Section Head / Mr. Kawee Suthasub is Technical Management.  
4. \* = Test Report/Sampling marked Not Accredited, Sampling By Miss Pornpinan Viriyakusolkul (จ-003-จ-8334)\*  
5. \*\* = These data are non laboratory data. / Sampling At UTM 47 P 730370 E 1404509 N

Examined By   
( Miss Apiradee Chuen-arom )  
(จ-003-จ-4377)  
06 / 06 / 2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By   
( Mr. Kawee Suthasub )  
(จ-003-จ-2205)  
06 / 06 / 2022

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Request No. W6505268

Report No. 6506-0117

**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\*\*  
Sampling Source : EOEG Plant\*\* Sample No. : W 65051039  
Sample Name : บ่อสังเคราะห์ 2 (TOCGC MW05)\*\* Sampling Date : 11/05/2022\*\*  
Sampling By : ETC\*\* Sampling Time : 11:40 AM\*\*  
Sampling Method : Grab\*\* Received Date : 12/05/2022  
Tested Date : 12/05/2022 – 06/06/2022 Reported Date : 06/06/2022

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)	< 0.0050	≤ 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. @ = 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, 2018  
3. Miss Apiradee Chuen-arom is Section Head / Mr. Kawee Suthasub is Technical Management.  
4. \* = Test Report/Sampling marked Not Accredited, Sampling By Miss Pornpinan Viriyakusolkul (๓-003-๓-8334)\*  
5. \*\* = These data are non laboratory data. / Sampling At UTM 47 P 730370 E 1404509 N

Examined By.....  
( Miss Apiradee Chuen-arom )  
(๓-003-๓-4377)  
06 / 06 / 2022



Approved By.....  
( Mr. Kawee Suthasub )  
(๓-003-๓-2205)  
06 / 06 / 2022

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Request No. W6505268

Report No. 6506-0117

**TEST REPORT**

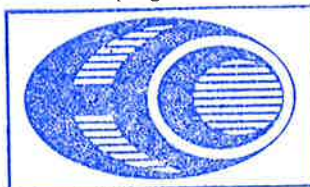
Customer : GC Glycol Company Limited\*\*  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\*  
Sample Name : บ่อสังเกตการณ์ 2 (TOCGC MW05)\*\*  
Sampling By : ETC\*\*  
Sampling Method : Grab\*\*  
Tested Date : 12/05/2022 – 06/06/2022

Sample No. : W 65051039  
Sampling Date : 11/05/2022\*\*  
Sampling Time : 11:40 AM\*\*  
Received Date : 12/05/2022  
Reported Date : 06/06/2022

Parameter	Unit	Method	Result	Standard <sup>1/</sup>
Boron *	mg/l	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.11	-
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)	32.0	-
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. @ = ISO/IEC 17025:2017 Accredited by TISI., SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2018  
4. Mr. Kawee Suthasub is Technical Management.  
5. \* = Test Report/Sampling marked Not Accredited, Sampling By Miss Pornpinan Viriyakusolkul (ว-003-จ-8334)\*  
6. \*\* = These data are non laboratory data. / Sampling At UTM 47 P 730370 E 1404509 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....  
( Mr. Kawee Suthasub )

06 / 06 / 2022

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

Request No. W6505268

Report No. 6506-0117

## 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

Sampling Source : EOEG Plant Sample No. : W 65051039

Sample Name : บ่อสังเคราะห์ 2 (TOCGC MW05) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 11:40 AM

Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 06/06/2022 Reported Date : 06/06/2022

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 Miss Pornpinan Viriyakusolkul (ว-003-จ-8334)

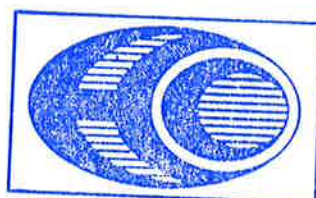
3. Sampling At UTM 47 P 730370 E 1404509 N

Examined By 


( Miss Apiradee Chuen-arom )

(ว-003-ค-4377)

06/06/2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By 

( Mr. Kawee Suthasub )

( ว-003-ค-2205 )

06/06/2022

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Request No. W6505268

Report No. 6506-0117

## 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

Sampling Source : EOEG Plant Sample No. : W 65051039

Sample Name : บ่อสังเกตการณ์ 2 (TOCGC MW05) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 11:40 AM

Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 06/06/2022 Reported Date : 06/06/2022

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
- 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
- Vinyl Chloride	mg/l	Purge-and-Trap/GC-MS	Not Detected	≤ 0.03
- Dichloromethane	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 ]

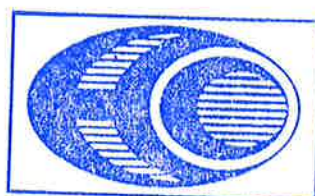
Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Miss Pornpinan Viriyakusolkul (ว-003-จ-8334)  
3. Sampling At UTM 47 P 730370 E 1404509 N

Examined By .....

( Miss Apiradee Chuen-arom )

( ว-003-ค-4377 )

06/06/2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By .....

( Mr. Kawee Suthasub )

( ว-003-ค-2205 )

06/06/2022

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Request No. W6505268

Report No. 6506-0117

## 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

Sampling Source : EOEG Plant Sample No. : W 65051039

Sample Name : บ่อสังเกตการณ์ 2 (TOCGC MW05) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 11:40 AM

Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 06/06/2022 Reported Date : 06/06/2022

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 ]

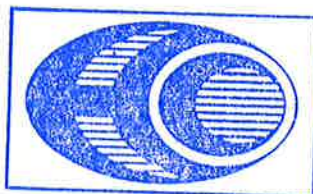
Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)

2. Sampling By Eastern Thai Consulting 1992 Co., Ltd., (Miss Pornpinan Viriyakusolkul (จ-003-จ-8334))

3. \*\*\* Tested by SECOT Co.,Ltd. (จ-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



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By 

( Miss Apiradee Chuen-arom )

06 / 06 / 2022

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

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Request No. W6505268

Report No. 6506-0118

**TEST REPORT**

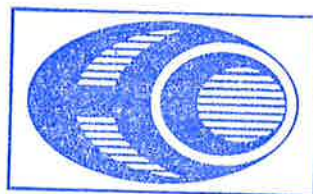
Customer : GC Glycol Company Limited\*\*  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\*  
Sample Name : บ่อสังเคราะห์ 3 (TOCGC MW06)\*\*  
Sampling By : ETC\*\*  
Sampling Method : Grab\*\*  
Tested Date : 12/05/2022 – 06/06/2022  
Sample No. : W 65051040  
Sampling Date : 11/05/2022\*\*  
Sampling Time : 10:00 AM\*\*  
Received Date : 12/05/2022  
Reported Date : 06/06/2022

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 @		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)	0.35	≤ 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. @ = 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, 2018  
3. Miss Apiradee Chuen-arom is Section Head / Mr. Kawee Suthasub is Technical Management.  
4. \* = Test Report/Sampling marked Not Accredited, Sampling By Miss Pornpinan Viriyakusolkul (จ-003-จ-8334)\*  
5. \*\* = These data are non laboratory data. / Sampling At UTM 47 P 730789 E 1404730 N

Examined By.....  
(Miss Apiradee Chuen-arom)  
(จ-003-จ-4377)  
06 / 06 / 2022



Approved By.....  
(Mr. Kawee Suthasub )  
(จ-003-จ-2205)  
06 / 06 / 2022

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No. W6505268

Report No. 6506-0118


**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\*\*  
Sampling Source : EOEG Plant\*\* Sample No. : W 65051040  
Sample Name : บ่อสังเคราะห์ 3 (TOCGC MW06)\*\* Sampling Date : 11/05/2022\*\*  
Sampling By : ETC\*\* Sampling Time : 10:00 AM\*\*  
Sampling Method : Grab\*\* Received Date : 12/05/2022  
Tested Date : 12/05/2022 – 06/06/2022 Reported Date : 06/06/2022


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)	< 0.0050	≤ 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. @ = 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, 2018  
3. Miss Apiradee Chuen-arom is Section Head / Mr. Kawee Suthasub is Technical Management.  
4. \* = Test Report/Sampling marked Not Accredited, Sampling By Miss Pornpinan Viriyakusolkul (ว-003-จ-8334)\*  
5. \*\* = These data are non laboratory data. / Sampling At UTM 47 P 730789 E 1404730 N

Examined By   
( Miss Apiradee Chuen-arom )  
(ว-003-ค-4377)  
06 / 06 / 2022



Approved By   
( Mr. Kawee Suthasub )  
(ว-003-ค-2205)  
06 / 06 / 2022

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Request No. W6505268

Report No. 6506-0118

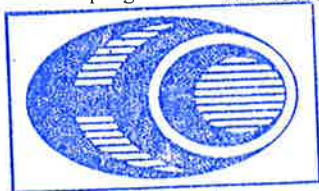
**TEST REPORT**

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\*\*  
Sampling Source : EOEG Plant\*\* Sample No. : W 65051040  
Sample Name : ป๋อสังเกตรณ 3 (TOCGC MW06)\*\* Sampling Date : 11/05/2022\*\*  
Sampling By : ETC\*\* Sampling Time : 10:00 AM\*\*  
Sampling Method : Grab\*\* Received Date : 12/05/2022  
Tested Date : 12/05/2022 – 06/06/2022 Reported Date : 06/06/2022

Parameter	Unit	Method	Result	Standard <sup>1)</sup>
Boron *	mg/l	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.02	-
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)	11.6	-
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. @ = ISO/IEC 17025:2017 Accredited by TISI., SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2018  
4. Mr. Kawee Suthasub is Technical Management.  
5. \* = Test Report/Sampling marked Not Accredited, Sampling By Miss Pornpinan Viriyakusolkul (จ-003-จ-8334)\*  
6. \*\* = These data are non laboratory data. / Sampling At UTM 47 P 730789 E 1404730 N



บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Examined By.....  
( Mr. Kawee Suthasub )

06 / 06 / 2022

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Request No. W6505268

Report No. 6506-0118

## 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

Sampling Source : EOEG Plant Sample No. : W 65051040

Sample Name : บ่อสังเกตการณ์ 3 (TOCGC MW06) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 10:00 AM


Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 06/06/2022 Reported Date : 06/06/2022


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 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 Miss Pornpinan Viriyakusolkul (ว-003-จ-8334)  
3. Sampling At UTM 47 P 730789 E 1404730 N

Examined By   
( Miss Apiradee Chuen-arom )  
(ว-003-ค-4377)  
06/06/2022



Approved By   
( Mr. Kawee Suthasub )  
( ว-003-ค-2205 )  
06/06/2022

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Request No. W6505268

Report No. 6506-0118

## 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

Sampling Source : EOEG Plant Sample No. : W 65051040

Sample Name : บ่อสังเกตการณ์ 3 (TOCGC MW06) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 10:00 AM

Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 06/06/2022 Reported Date : 06/06/2022

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
- 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
- Vinyl Chloride	mg/l	Purge-and-Trap/GC-MS	Not Detected	≤ 0.03
- Dichloromethane	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 Miss Pornpinan Viriyakusolkul (ว-003-จ-8334)  
3. Sampling At UTM 47 P 730789 E 1404730 N

Examined By



( Miss Apiradee Chuen-arom )

( ว-003-ค-4377 )

06/06/2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By



( Mr. Kawee Suthasub )

( ว-003-ค-2205 )

06/06/2022

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY

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Request No. W6505268

Report No. 6506-0118

## 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

Sampling Source : EOEG Plant Sample No. : W 65051040

Sample Name : บ่อสังเคราะห์ 3 (TOCGC MW06) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 10:00 AM

Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 06/06/2022 Reported Date : 06/06/2022

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 ]

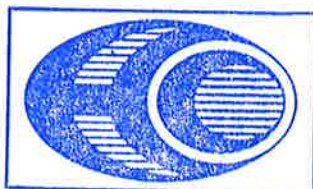
Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)

2. Sampling By Eastern Thai Consulting 1992 Co., Ltd., (Miss Pornpinan Viriyakusolkul (๖-003-๖-8334))

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



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



( Miss Apiradee Chuen-arom )

06 / 06 / 2022

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

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WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. W6505268

Report No. 6506-0119

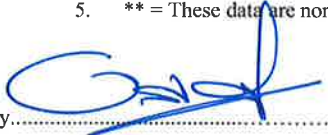
**TEST REPORT**

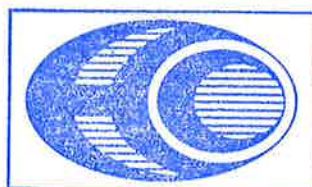
Customer : GC Glycol Company Limited\*\*  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\*  
Sample Name : บ่อสังเคราะห์ 4 (TOCGC MW07)\*\*  
Sampling By : ETC\*\*  
Sampling Method : Grab\*\*  
Tested Date : 12/05/2022 – 06/06/2022  
Sample No. : W 65051041  
Sampling Date : 11/05/2022\*\*  
Sampling Time : 10:20 AM\*\*  
Received Date : 12/05/2022  
Reported Date : 06/06/2022

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 @		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)	0.07	≤ 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. @ = 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, 2018  
3. Miss Apiradee Chuen-arom is Section Head / Mr. Kawee Suthasub is Technical Management.  
4. \* = Test Report/Sampling marked Not Accredited, Sampling By Miss Pornpinan Viriyakusolkul (จ-003-ท-8334)\*  
5. \*\* = These data are non laboratory data. / Sampling At UTM 47 P 730841 E 1404704 N

Examined By.   
( Miss Apiradee Chuen-arom )  
(จ-003-ท-4377)  
06 / 06 / 2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By   
( Mr. Kawee Suthasub )  
(จ-003-ท-2205)  
06 / 06 / 2022

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WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. W6505268

Report No. 6506-0119


**TEST REPORT**

Customer	: GC Glycol Company Limited**	Sample No.	: W 65051041
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 Date	: 11/05/2022**
Sampling Source	: EOEG Plant**	Sampling Time	: 10:20 AM**
Sample Name	: บ่อสังเคราะห์ 4 (TOCGC MW07)**	Received Date	: 12/05/2022
Sampling By	: ETC**	Reported Date	: 06/06/2022
Sampling Method	: Grab**		
Tested Date	: 12/05/2022 – 06/06/2022		


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)	< 0.0050	≤ 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. @ = 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, 2018  
3. Miss Apiradee Chuen-arom is Section Head / Mr. Kawee Suthasub is Technical Management.  
4. \* = Test Report/Sampling marked Not Accredited, Sampling By Miss Pornpinan Viriyakusolkul (จ-003-จ-8334)\*  
5. \*\* = These data are non laboratory data. / Sampling At UTM 47 P 730841 E 1404704 N

Examined By   
( Miss Apiradee Chuen-arom )  
(จ-003-ก-4377)  
06 / 06 / 2022



Approved By   
( Mr. Kawee Suthasub )  
(จ-003-ก-2205)  
06 / 06 / 2022

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Request No. W6505268

Report No. 6506-0119

**TEST REPORT**

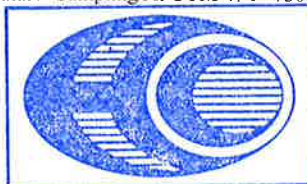
Customer : GC Glycol Company Limited\*\*  
Address : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road, Tambon Map Ta Phut, Amphur Muang Rayong, Rayong 21150\*\*  
Sampling Source : EOEG Plant\*\*  
Sample Name : บ่อสังเกตการณ์ 4 (TOCGC MW07)\*\*  
Sampling By : ETC\*\*  
Sampling Method : Grab\*\*  
Tested Date : 12/05/2022 – 06/06/2022

Sample No. : W 65051041  
Sampling Date : 11/05/2022\*\*  
Sampling Time : 10:20 AM\*\*  
Received Date : 12/05/2022  
Reported Date : 06/06/2022

Parameter	Unit	Method	Result	Standard <sup>/1</sup>
Boron *	mg/l	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.02	-
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)	0.06	-
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. @ = ISO/IEC 17025:2017 Accredited by TISI., SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2018  
4. Mr. Kawee Suthasub is Technical Management.  
5. \* = Test Report/Sampling marked Not Accredited, Sampling By Miss Pornpinan Viriyakusolkul (จ-003-จ-8334)\*  
6. \*\* = These data are non laboratory data. / Sampling At UTM 47 P 730841 E 1404704 N



บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Examined By.....  
( Mr. Kawee Suthasub )

06 / 06 / 2022

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Request No. W6505268

Report No. 6506-0119

## 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

Sampling Source : EOEG Plant Sample No. : W 65051041

Sample Name : บ่อสังเคราะห์ 4 (TOCGC MW07) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 10:20 AM


Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 06/06/2022 Reported Date : 06/06/2022


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 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 Miss Pornpinan Viriyakusolkul (ว-003-จ-8334)  
3. Sampling At UTM 47 P 730841 E 1404704 N

Examined By   
( Miss Apiradee Chuen-arom )  
(ว-003-ค-4377)  
06/06/2022



Approved By   
( Mr. Kawee Suthasub )  
( ว-003-ค-2205 )  
06/06/2022

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Request No. W6505268

Report No. 6506-0119

## 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

Sampling Source : EOEG Plant Sample No. : W 65051041

Sample Name : บ่อสังเกตการณ์ 4 (TOCGC MW07) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 10:20 AM

Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 06/06/2022 Reported Date : 06/06/2022

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
- 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
- Vinyl Chloride	mg/l	Purge-and-Trap/GC-MS	Not Detected	≤ 0.03
- Dichloromethane	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 ]

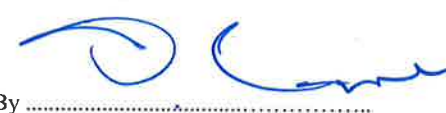
Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)

2. Sampling By Miss Pornpinan Viriyakusolkul (ว-003-จ-8334)

3. Sampling At UTM 47 P 730841 E 1404704 N

Examined By   
( Miss Apiradee Chuen-arom )  
(ว-003-ค-4377)  
06/06/2022



Approved By   
( Mr. Kawee Suthasub )  
( ว-003-ค-2205 )  
06/06/2022

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Request No. W6505268

Report No. 6506-0119

## 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

Sampling Source : EOEG Plant Sample No. : W 65051041

Sample Name : บ่อสังเคราะห์ 4 (TOCGC MW07) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 10:20 AM

Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 06/06/2022 Reported Date : 06/06/2022

Parameter	Unit	Method	Result	Standard <sup>1</sup>
<b>Total Petroleum Hydrocarbons ***</b>				
- TPH (C <sub>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., (Miss Pornpinan Viriyakusolkul (๖-003-๖-8334))

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



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By 

( Miss Apiradee Chuen-arom )

06 / 06 / 2022

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

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Request No. W6505270

Report No. 6506-0112

## 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

Sampling Source : EOEG Plant Sample No. : W 65051045

Sample Name : บ่อสังเคราะห์ 1 (TOCGC MW01) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 9:25 AM

Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 01/06/2022 Reported Date : 07/06/2022

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	5.08	≤ 640
Hexavalent Chromium	mg/kg	Alkaline Digestion, Colorimetric Method	< 2.00	≤ 640
Lead (Pb)	mg/kg	Digestion, Inductively Coupled Plasma	4.75	≤ 750
Manganese (Mn)	mg/kg	Digestion, Inductively Coupled Plasma	70.8	≤ 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	6.94	≤ 1,000
Zinc (Zn)	mg/kg	Digestion, Inductively Coupled Plasma	22.9	≤ 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 Miss Pornpinan Viriyakusolkul (จ-003-จ-8334)  
3. Sampling At UTM 47 P 731078 E 1405208 N

Examined By 

( Miss Apiradee Chuen-arom )

(จ-003-ค-4377)

07 / 06 / 2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By 

( Mr. Kawee Suthasub )

(จ-003-ค-2205)

07 / 06 / 2022

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Request No. W6505270

Report No. 6506-0112

## 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

Sampling Source : EOEG Plant Sample No. : W 65051045

Sample Name : บ่อสังเกตการณ์ I (TOCGC MW01) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 9:25 AM

Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 01/06/2022 Reported Date : 07/06/2022

Parameter	Unit	Method	Result	Standard <sup>11</sup>
Boron (B)	mg/kg	Digestion, Inductively Coupled Plasma	4.03	-
Cobalt (Co)	mg/kg	Digestion, Inductively Coupled Plasma	< 1.00	-
Copper (Cu)	mg/kg	Digestion, Inductively Coupled Plasma	1.32	-
Iron (Fe)	mg/kg	Digestion, Inductively Coupled Plasma	2,569	-
Titanium (Ti)	mg/kg	Digestion, Inductively Coupled Plasma	12.1	-

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 Miss Pornpinan Viriyakusolkul (ว-003-จ-8334)  
4. Sampling At UTM 47 P 731078 E 1405208 N



Examined By   
( Miss Apiradee Chuen-arom )

07/06/2022

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Request No. W6505270

Report No. 6506-0112

## 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

Sampling Source : EOEG Plant Sample No. : W 65051045

Sample Name : บ่อสังเกตการณ์ 1 (TOCGC MW01) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 9:25 AM

Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 01/06/2022 Reported Date : 07/06/2022

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
- 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 Miss Pornpinan Viriyakusolkul (ว-003-จ-8334)

3. Sampling At UTM 47 P 731078 E 1405208 N

Examined By   
( Miss Apiradee Chuen-arom )  
(ว-003-ท-4377)  
07/06/2022



Approved By   
( Mr. Kawee Suthasub )  
( ว-003-ท-2205 )  
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Request No. W6505270

Report No. 6506-0112

## 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

Sampling Source : EOEG Plant Sample No. : W 65051045

Sample Name : บ่อสังเคราะห์ 1 (TOCGC MW01) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 9:25 AM


Sampling Method : Grab Received Date : 12/05/2022

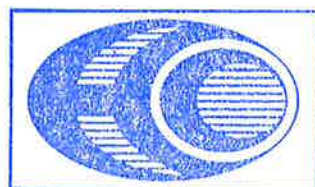
Tested Date : 12/05/2022 – 01/06/2022 Reported Date : 07/06/2022

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
- Dichloromethane	mg/kg	Purge-and-Trap/GC-MS	0.012	≤ 210

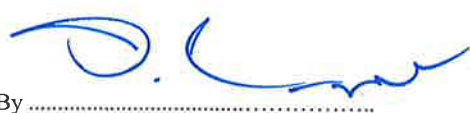
Physical Apperance : 1. Sample : brown, soil  
2. Container : Normal [ G 0.5 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Miss Pornpinan Viriyakusolkul (ว-003-จ-8334)  
3. Sampling At UTM 47 P 731078 E 1405208 N

Examined By   
( Miss Apiradee Chuen-arom )  
(ว-003-ค-4377)  
07/06/2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By   
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( ว-003-ค-2205 )  
07/06/2022

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Request No. W6505270

Report No. 6506-0112

## 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

Sampling Source : EOEG Plant Sample No. : W 65051045

Sample Name : บ่อสังเกตการณ์ 1 (TOCGC MW01) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 9:25 AM

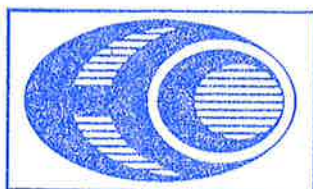
Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 01/06/2022 Reported Date : 07/06/2022

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	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., (Miss Pornpinan Viriyakusolkul (๖-003-๖-8334))  
3. \*\*\* Tested by SECOT Co.,Ltd. (๖-239)  
4. MDL = Method Detection Limit [ MDL of TPH (C<sub>8</sub>-C<sub>16</sub>) = 0.25 mg/kg ]  
5. ND = non-detectable / Sampling At UTM 47 P 731078 E 1405208 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



( Miss Apiradee Chuen-arom )

07 / 06 / 2022

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

Request No. W6505270

Report No. 6506-0113

## 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

Sampling Source : EOEG Plant Sample No. : W 65051046

Sample Name : บ่อสังเกตการณ์ 2 (TOCGC MW05) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 11:40 AM

Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 01/06/2022 Reported Date : 07/06/2022

Parameter	Unit	Method	Result	Standard <sup>1)</sup>
Arsenic (As)	mg/kg	Digestion, Inductively Coupled Plasma	11.1	≤ 27
Beryllium (Be)	mg/kg	Digestion, Inductively Coupled Plasma	< 1.00	≤ 13
Cadmium (Cd)	mg/kg	Digestion, Inductively Coupled Plasma	0.38	≤ 810
Chromium (Cr)	mg/kg	Digestion, Inductively Coupled Plasma	18.0	≤ 640
Hexavalent Chromium	mg/kg	Alkaline Digestion, Colorimetric Method	< 2.00	≤ 640
Lead (Pb)	mg/kg	Digestion, Inductively Coupled Plasma	7.66	≤ 750
Manganese (Mn)	mg/kg	Digestion, Inductively Coupled Plasma	183	≤ 32,000
Mercury (Hg)	mg/kg	Digestion, Cold-Vapor Atomic Absorption Spectrometric	< 0.20	≤ 610
Nickel (Ni)	mg/kg	Digestion, Inductively Coupled Plasma	1.58	≤ 41,000
Selenium (Se)	mg/kg	Digestion, Inductively Coupled Plasma	< 5.00	≤ 10,000
Vanadium (V)	mg/kg	Digestion, Inductively Coupled Plasma	23.3	≤ 1,000
Zinc (Zn)	mg/kg	Digestion, Inductively Coupled Plasma	24.2	≤ 1,000

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

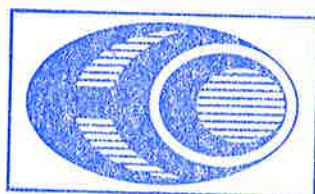
Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Miss Pompinan Viriyakusolkul (ว-003-ท-8334)  
3. Sampling At UTM 47 P 730370 E 1404509 N

Examined By .....

( Miss Apiradee Chuen-arom )

(ว-003-ท-4377)

07 / 06 / 2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By .....

( Mr. Kawee Suthasub )

(ว-003-ท-2205)

07 / 06 / 2022

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Request No. W6505270

Report No. 6506-0113

## 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

Sampling Source : EOEG Plant Sample No. : W 65051046

Sample Name : บ่อสังเคราะห์ 2 (TOCGC MW05) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 11:40 AM

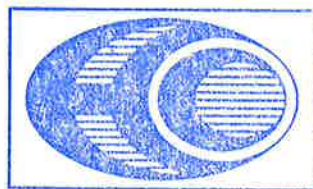
Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 01/06/2022 Reported Date : 07/06/2022

Parameter	Unit	Method	Result	Standard <sup>1)</sup>
Boron (B)	mg/kg	Digestion, Inductively Coupled Plasma	16.8	-
Cobalt (Co)	mg/kg	Digestion, Inductively Coupled Plasma	< 1.00	-
Copper (Cu)	mg/kg	Digestion, Inductively Coupled Plasma	1.02	-
Iron (Fe)	mg/kg	Digestion, Inductively Coupled Plasma	8,981	-
Titanium (Ti)	mg/kg	Digestion, Inductively Coupled Plasma	11.7	-

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 Miss Pompinan Viriyakusolkul (1-003-1-8334)  
4. Sampling At UTM 47 P 730370 E 1404509 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

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

07/ 06 / 2022

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Request No. W6505270

Report No. 6506-0113

## 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

Sampling Source : EOEG Plant Sample No. : W 65051046

Sample Name : บ่อสังเกตการณ์ 2 (TOCGC MW05) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 11:40 AM


Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 01/06/2022 Reported Date : 07/06/2022


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
- 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 Miss Pornpinan Viriyakusolkul (ว-003-จ-8334)  
3. Sampling At UTM 47 P 730370 E 1404509 N

Examined By   
( Miss Apiradee Chuen-arom )  
(ว-003-ค-4377)  
07/06/2022



Approved By   
( Mr. Kawee Suthasub )  
( ว-003-ค-2205 )  
07/06/2022

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Request No. W6505270

Report No. 6506-0113

## 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

Sampling Source : EOEG Plant Sample No. : W 65051046

Sample Name : บ่อสังเกตการณ์ 2 (TOCGC MW05) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 11:40 AM

Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 01/06/2022 Reported Date : 07/06/2022

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
- Dichloromethane	mg/kg	Purge-and-Trap/GC-MS	Not Detected	≤ 210

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

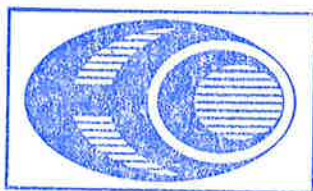
Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Miss Pornpinan Viriyakusolkul (ว-003-จ-8334)  
3. Sampling At UTM 47 P 730370 E 1404509 N

Examined By 

( Miss Apiradee Chuen-arom )

( ว-003-ค-4377 )

07/06/2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By 

( Mr. Kawee Suthasub )

( ว-003-ค-2205 )

07/06/2022

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Request No. W6505270

Report No. 6506-0113

## 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

Sampling Source : EOEG Plant Sample No. : W 65051046

Sample Name : บ่อสังเคราะห์ 2 (TOCGC MW05) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 11:40 AM

Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 01/06/2022 Reported Date : 07/06/2022

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	0.60	≤ 25
- n-Nonane				
- n-Decane				
- n-Dodecane				
- n-Tetradecane				
- n-Hexadecane				

Physical Appearance : 1. Sample : brown, soil

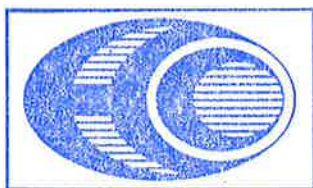
2. Container : Normal [ G 0.5 L ]

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

2. Sampling By Eastern Thai Consulting 1992 Co., Ltd., (Miss Pornpinan Viriyakusolkul (๖-003-๖-8334))

3. \*\*\* Tested by SECOT Co.,Ltd. (๖-239)

4. Sampling At UTM 47 P 730370 E 1404509 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By 

( Miss Apiradee Chuen-arom )

07 / 06 / 2022

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

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Request No. W6505270

Report No. 6506-0114

## 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

Sampling Source : EOEG Plant

Sample Name : บ่อสังเกตการณ์ 3 (TOCGC MW06)

Sampling By : ETC

Sampling Method : Grab

Tested Date : 12/05/2022 – 01/06/2022

Sample No. : W 65051047

Sampling Date : 11/05/2022

Sampling Time : 10:00 AM

Received Date : 12/05/2022

Reported Date : 07/06/2022

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	2.35	≤ 640
Hexavalent Chromium	mg/kg	Alkaline Digestion, Colorimetric Method	< 2.00	≤ 640
Lead (Pb)	mg/kg	Digestion, Inductively Coupled Plasma	5.32	≤ 750
Manganese (Mn)	mg/kg	Digestion, Inductively Coupled Plasma	172	≤ 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	3.15	≤ 1,000
Zinc (Zn)	mg/kg	Digestion, Inductively Coupled Plasma	16.8	≤ 1,000

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

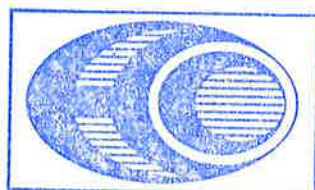
Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Miss Pompinan Viriyakusolkul (ว-003-จ-8334)  
3. Sampling At UTM 47 P 730789 E 1404730 N

Examined By

(Miss Apiradee Chuen-arom)

(ว-003-ค-4377)

07 / 06 / 2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub )

(ว-003-ค-2205)

07 / 06 / 2022

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Request No. W6505270

Report No. 6506-0114

## 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

Sampling Source : EOEG Plant Sample No. : W 65051047

Sample Name : บ่อสังเคราะห์ 3 (TOCGC MW06) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 10:00 AM

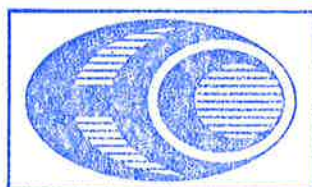
Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 01/06/2022 Reported Date : 07/06/2022

Parameter	Unit	Method	Result	Standard <sup>11</sup>
Boron (B)	mg/kg	Digestion, Inductively Coupled Plasma	4.77	-
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	1,981	-
Titanium (Ti)	mg/kg	Digestion, Inductively Coupled Plasma	23.4	-

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 Miss Pompinan Viriyakusolkul (ว-003-จ-8334)  
4. Sampling At UTM 47 P 730789 E 1404730 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

( Miss Apiradee Chuen-arom)

07/ 06 / 2022

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Request No. W6505270

Report No. 6506-0114

## 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

Sampling Source : EOEG Plant Sample No. : W 65051047

Sample Name : บ่อสังเกตการณ์ 3 (TOCGC MW06) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 10:00 AM

Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 01/06/2022 Reported Date : 07/06/2022

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
- 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 Miss Pornpinan Viriyakusolkul (ว-003-จ-8334)

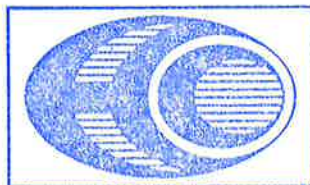
3. Sampling At UTM 47 P 730789 E 1404730 N

Examined By 

( Miss Apiradee Chuen-arom )

( ว-003-ท-4377 )

07/06/2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By 

( Mr. Kawee Suthasub )

( ว-003-ท-2205 )

07/06/2022

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY

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Request No. W6505270

Report No. 6506-0114

## 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

Sampling Source : EOEG Plant Sample No. : W 65051047

Sample Name : บ่อสังเกตการณ์ 3 (TOCGC MW06) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 10:00 AM

Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 01/06/2022 Reported Date : 07/06/2022

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
- Dichloromethane	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 Miss Pornpinan Viriyakusolkul (ว-003-จ-8334)
3. Sampling At UTM 47 P 730789 E 1404730 N

Examined By

( Miss Apiradee Chuen-arom )

(ว-003-ค-4377)

07/06/2022



Approved By

( Mr. Kawee Suthasub )

(ว-003-ค-2205)

07/06/2022

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY

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Request No. W6505270

Report No. 6506-0114

## 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

Sampling Source : EOEG Plant Sample No. : W 65051047

Sample Name : บ่อสังเกตุการณ์ 3 (TOCGC MW06) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 10:00 AM

Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 01/06/2022 Reported Date : 07/06/2022

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	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., (Miss Pornpinan Viriyakusolkul (๖-003-๖-8334))  
3. \*\*\* Tested by SECOT Co.,Ltd. (๖-239)  
4. MDL = Method Detection Limit [ MDL of TPH (C<sub>8</sub>-C<sub>16</sub>) = 0.25 mg/kg ]  
5. ND = non-detectable / Sampling At UTM 47 P 730789 E 1404730 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By .....

( Miss Apiradee Chuen-arom )

07 / 06 / 2022

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

Request No. W6505270

Report No. 6506-0115

## 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

Sampling Source : EOEG Plant Sample No. : W 65051048

Sample Name : บ่อสังเกตการณ์ 4 (TOCGC MW07) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 10:20 AM

Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 01/06/2022 Reported Date : 07/06/2022

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	0.24	≤ 810
Chromium (Cr)	mg/kg	Digestion, Inductively Coupled Plasma	8.16	≤ 640
Hexavalent Chromium	mg/kg	Alkaline Digestion, Colorimetric Method	< 2.00	≤ 640
Lead (Pb)	mg/kg	Digestion, Inductively Coupled Plasma	4.23	≤ 750
Manganese (Mn)	mg/kg	Digestion, Inductively Coupled Plasma	58.3	≤ 32,000
Mercury (Hg)	mg/kg	Digestion, Cold-Vapor Atomic Absorption Spectrometric	< 0.20	≤ 610
Nickel (Ni)	mg/kg	Digestion, Inductively Coupled Plasma	1.66	≤ 41,000
Selenium (Se)	mg/kg	Digestion, Inductively Coupled Plasma	< 5.00	≤ 10,000
Vanadium (V)	mg/kg	Digestion, Inductively Coupled Plasma	14.7	≤ 1,000
Zinc (Zn)	mg/kg	Digestion, Inductively Coupled Plasma	67.3	≤ 1,000

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

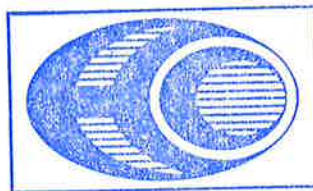
Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Miss Pornpinan Viriyakusolkul (ว-003-จ-8334)  
3. Sampling At UTM 47 P 730841 E 1404704 N

Examined By.....

( Miss Apiradee Chuen-arom )

(ว-003-ค-4377)

07 / 06 / 2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By .....

( Mr. Kawee Suthasub )

(ว-003-ค-2205)

07 / 06 / 2022

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



Request No. W6505270

Report No. 6506-0115

## 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

Sampling Source : EOEG Plant Sample No. : W 65051048

Sample Name : บ่อสังเกตการณ์ 4 (TOCGC MW07) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 10:20 AM

Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 01/06/2022 Reported Date : 07/06/2022

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Boron (B)	mg/kg	Digestion, Inductively Coupled Plasma	9.60	-
Cobalt (Co)	mg/kg	Digestion, Inductively Coupled Plasma	< 1.00	-
Copper (Cu)	mg/kg	Digestion, Inductively Coupled Plasma	1.53	-
Iron (Fe)	mg/kg	Digestion, Inductively Coupled Plasma	5,234	-
Titanium (Ti)	mg/kg	Digestion, Inductively Coupled Plasma	17.1	-

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 Miss Pompinan Viriyakusolkul (๖-003-๖-8334)  
4. Sampling At UTM 47 P 730841 E 1404704 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....



( Miss Apiradee Chuen-arom )

07/ 06 / 2022

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



Request No. W6505270

Report No. 6506-0115

## 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

Sampling Source : EOEG Plant Sample No. : W 65051048

Sample Name : บ่อสังเกตการณ์ 4 (TOCGC MW07) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 10:20 AM


Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 01/06/2022 Reported Date : 07/06/2022

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
- 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 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 Miss Pornpinan Viriyakusolkul (จ-003-จ-8334)  
3. Sampling At UTM 47 P 730841 E 1404704 N

Examined By   
( Miss Apiradee Chuen-arom )

(จ-003-ค-4377)  
07/06/2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By   
( Mr. Kawee Suthasub )

( จ-003-ค-2205 )  
07/06/2022

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

Request No. W6505270

Report No. 6506-0115

## 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

Sampling Source : EOEG Plant Sample No. : W 65051048

Sample Name : บ่อสังเคราะห์ 4 (TOCGC MW07) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 10:20 AM

Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 01/06/2022 Reported Date : 07/06/2022

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
- Dichloromethane	mg/kg	Purge-and-Trap/GC-MS	0.011	≤ 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 Miss Pornpinan Viriyakusolkul (ว-003-จ-8334)
3. Sampling At UTM 47 P 730841 E 1404704 N

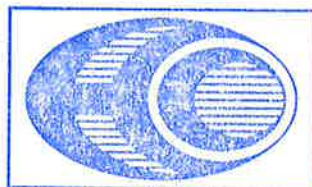
Examined By



( Miss Apiradee Chuen-arom )

(ว-003-ค-4377)

07/06/2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By



( Mr. Kawee Suthasub )

( ว-003-ค-2205 )

07/06/2022

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. W6505270

Report No. 6506-0115

## 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

Sampling Source : EOEG Plant Sample No. : W 65051048

Sample Name : บ่อสังเกตการณ์ 4 (TOCGC MW07) Sampling Date : 11/05/2022

Sampling By : ETC Sampling Time : 10:20 AM

Sampling Method : Grab Received Date : 12/05/2022

Tested Date : 12/05/2022 – 01/06/2022 Reported Date : 07/06/2022

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	0.74	≤ 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., (Miss Pornpinan Viriyakusolkul (ว-003-จ-8334))

3. \*\*\* Tested by SECOT Co.,Ltd. (ว-239)

4. Sampling At UTM 47 P 730841 E 1404704 N



Examined By .....



( Miss Apiradee Chuen-arom )

07 / 06 / 2022

REPORTED TEST 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 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 00443359 : Type 2

SAMPLE NO. : 33956  
MEASURING DATE : 03-04/11/2022  
RECEIVED DATE : 10/11/2022  
REPORTED DATE : 22/11/2022

TIME \ DATE	03-04/11/2022 ( $L_{eq}$ )	03-04/11/2022 ( $L_{max}$ )	03-04/11/2022 ( $L_{90\#}$ )	UNIT
10:00 - 11:00 <sup>3</sup>	60.4	79.3	53.1	dB(A)
11:00 - 12:00	62.9	84.8	53.3	dB(A)
12:00 - 13:00	60.8	82.6	52.6	dB(A)
13:00 - 14:00	60.4	86.9	53.5	dB(A)
14:00 - 15:00	60.1	80.1	54.1	dB(A)
15:00 - 16:00	64.5	84.7	54.3	dB(A)
16:00 - 17:00	62.1	85.9	53.8	dB(A)
17:00 - 18:00	63.2	80.9	53.9	dB(A)
18:00 - 19:00	62.6	81.1	52.6	dB(A)
19:00 - 20:00	59.6	81.1	51.3	dB(A)
20:00 - 21:00	60.4	84.1	52.4	dB(A)
21:00 - 22:00	57.8	78.1	53.3	dB(A)
22:00 - 23:00	57.4	77.2	53.2	dB(A)
23:00 - 00:00	55.9	74.8	53.2	dB(A)
00:00 - 01:00	55.5	76.7	53.4	dB(A)
01:00 - 02:00	54.1	72.0	53.1	dB(A)
02:00 - 03:00	55.6	81.4	53.4	dB(A)
03:00 - 04:00	55.0	75.0	53.9	dB(A)
04:00 - 05:00	55.3	75.7	53.3	dB(A)
05:00 - 06:00	56.4	77.1	53.4	dB(A)
06:00 - 07:00	62.0	83.8	54.0	dB(A)
07:00 - 08:00	65.4	86.0	56.0	dB(A)
08:00 - 09:00	62.3	86.0	53.6	dB(A)
09:00 - 10:00	61.7	77.1	54.0	dB(A)
$L_{eq}$ 24 hr.	60.8	-	-	dB(A)
$L_{dn\#}$	64.6	-	-	dB(A)
Maximum	-	86.9	-	dB(A)
Standard	70 <sup>1</sup> , 70 <sup>2</sup>	115 <sup>1</sup> , 115 <sup>2</sup>	-	dB(A)

**REMARK :** Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory

<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)

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works

(Ms. Thanatporn Klinsoopon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)

(Measurement By Mr. Tummarut Photankham)

<sup>3</sup> Start Time



บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

22/11/2022

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



**TEST REPORT**

CUSTOMER : GC Glycol Co., Ltd  
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 00443359 : Type 2

SAMPLE NO. : 33957  
MEASURING DATE : 04-05/11/2022  
RECEIVED DATE : 10/11/2022  
REPORTED DATE : 22/11/2022

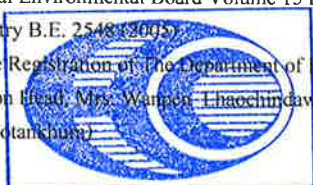
TIME \ DATE	04-05/11/2022 ( $L_{eq}$ )	04-05/11/2022 ( $L_{max}$ )	04-05/11/2022 ( $L_{90\#}$ )	UNIT
10:00 - 11:00 <sup>3</sup>	60.8	78.9	53.6	dB(A)
11:00 - 12:00	61.4	77.5	53.8	dB(A)
12:00 - 13:00	60.9	78.2	52.6	dB(A)
13:00 - 14:00	59.3	76.4	53.1	dB(A)
14:00 - 15:00	60.5	77.4	54.7	dB(A)
15:00 - 16:00	60.6	83.1	54.0	dB(A)
16:00 - 17:00	60.0	83.2	53.8	dB(A)
17:00 - 18:00	63.5	79.6	54.0	dB(A)
18:00 - 19:00	61.1	80.7	53.5	dB(A)
19:00 - 20:00	64.6	94.1	53.0	dB(A)
20:00 - 21:00	59.0	80.5	51.4	dB(A)
21:00 - 22:00	58.5	76.5	51.7	dB(A)
22:00 - 23:00	60.1	88.4	52.6	dB(A)
23:00 - 00:00	57.6	79.2	52.3	dB(A)
00:00 - 01:00	55.8	83.0	52.0	dB(A)
01:00 - 02:00	53.2	68.5	52.0	dB(A)
02:00 - 03:00	53.4	71.8	52.3	dB(A)
03:00 - 04:00	53.2	70.0	51.9	dB(A)
04:00 - 05:00	53.3	72.9	51.8	dB(A)
05:00 - 06:00	54.3	77.4	52.0	dB(A)
06:00 - 07:00	59.2	82.0	52.5	dB(A)
07:00 - 08:00	63.7	84.9	54.2	dB(A)
08:00 - 09:00	62.9	88.0	53.5	dB(A)
09:00 - 10:00	61.5	88.2	52.7	dB(A)
$L_{eq}$ 24 hr.	60.3	-	-	dB(A)
$L_{dn\#}$	64.0	-	-	dB(A)
Maximum	-	94.1	-	dB(A)
Standard	70 <sup>1</sup> , 70 <sup>2</sup>	115 <sup>1</sup> , 115 <sup>2</sup>	-	dB(A)

**REMARK :** Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory

<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)

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Ms. Thanatporn Klinsonon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)  
(Measurement By Mr. Tummarut Photankhurn)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

<sup>3</sup> Start Time

Approved By:   
(MRS. WANPEN LHAOCHINDAWAT)

22/11/2022

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



**TEST REPORT**

CUSTOMER : GC Glycol Co., Ltd  
ADDRESS : 9 Soi G-12, WHA Eastern Industrial Estate (Map Ta Phut), Pakorn Songkhraorat Road,  
Tamboon 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 00443359 : Type 2

SAMPLE NO. : 33958  
MEASURING DATE : 05-06/11/2022  
RECEIVED DATE : 10/11/2022  
REPORTED DATE : 22/11/2022

TIME \ DATE	05-06/11/2022 ( $L_{eq}$ )	05-06/11/2022 ( $L_{max}$ )	05-06/11/2022 ( $L_{90\#}$ )	UNIT
10:00 - 11:00 <sup>1/3</sup>	59.7	73.4	53.2	dB(A)
11:00 - 12:00	58.6	80.0	52.4	dB(A)
12:00 - 13:00	59.5	77.7	52.7	dB(A)
13:00 - 14:00	61.1	84.7	53.0	dB(A)
14:00 - 15:00	58.8	77.2	52.4	dB(A)
15:00 - 16:00	59.5	80.1	53.1	dB(A)
16:00 - 17:00	59.2	77.6	52.2	dB(A)
17:00 - 18:00	60.3	89.4	52.4	dB(A)
18:00 - 19:00	61.5	86.2	52.8	dB(A)
19:00 - 20:00	60.6	85.4	53.0	dB(A)
20:00 - 21:00	60.8	79.5	53.0	dB(A)
21:00 - 22:00	58.8	81.8	53.2	dB(A)
22:00 - 23:00	57.2	79.5	53.3	dB(A)
23:00 - 00:00	57.3	76.1	53.3	dB(A)
00:00 - 01:00	56.4	78.8	52.5	dB(A)
01:00 - 02:00	54.1	73.1	52.7	dB(A)
02:00 - 03:00	53.5	76.1	51.7	dB(A)
03:00 - 04:00	53.0	76.7	51.7	dB(A)
04:00 - 05:00	52.6	72.8	51.6	dB(A)
05:00 - 06:00	53.3	72.7	51.7	dB(A)
06:00 - 07:00	54.3	76.0	52.2	dB(A)
07:00 - 08:00	57.1	77.0	52.2	dB(A)
08:00 - 09:00	62.0	82.7	53.2	dB(A)
09:00 - 10:00	60.2	85.9	52.4	dB(A)
$L_{eq}$ 24 hr.	58.7	-	-	dB(A)
$L_{dn\#}$	62.6	-	-	dB(A)
Maximum	-	89.4	-	dB(A)
Standard	$70^{1/1}, 70^{1/2}$	$115^{1/1}, 115^{1/2}$	-	dB(A)

**REMARK :** Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory

<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)

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works

(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)

(Measurement By Mr. Tummarut Photankham)

<sup>1/3</sup> Start Time



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

22/11/2022

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

**TEST REPORT**

CUSTOMER : GC Glycol Co., Ltd  
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 00443359 : Type 2

SAMPLE NO. : 33959  
MEASURING DATE : 06-07/11/2022  
RECEIVED DATE : 10/11/2022  
REPORTED DATE : 22/11/2022

TIME \ DATE	06-07/11/2022 ( $L_{eq}$ )	06-07/11/2022 ( $L_{max}$ )	06-07/11/2022 ( $L_{90\#}$ )	UNIT
10:00 - 11:00 <sup>3</sup>	56.1	75.8	51.7	dB(A)
11:00 - 12:00	57.1	76.4	52.1	dB(A)
12:00 - 13:00	57.2	75.9	52.2	dB(A)
13:00 - 14:00	60.1	81.4	52.8	dB(A)
14:00 - 15:00	57.6	78.4	53.0	dB(A)
15:00 - 16:00	57.9	75.3	53.3	dB(A)
16:00 - 17:00	58.1	78.1	53.6	dB(A)
17:00 - 18:00	59.0	81.4	53.0	dB(A)
18:00 - 19:00	64.8	89.3	52.8	dB(A)
19:00 - 20:00	60.7	81.2	54.1	dB(A)
20:00 - 21:00	61.0	79.3	55.8	dB(A)
21:00 - 22:00	58.7	74.1	53.2	dB(A)
22:00 - 23:00	60.4	87.0	54.6	dB(A)
23:00 - 00:00	55.8	69.1	54.4	dB(A)
00:00 - 01:00	56.2	69.5	54.5	dB(A)
01:00 - 02:00	55.5	66.5	53.9	dB(A)
02:00 - 03:00	55.6	78.9	53.4	dB(A)
03:00 - 04:00	54.0	67.4	53.1	dB(A)
04:00 - 05:00	54.7	71.0	53.6	dB(A)
05:00 - 06:00	54.9	75.2	53.6	dB(A)
06:00 - 07:00	54.8	72.6	52.7	dB(A)
07:00 - 08:00	59.2	84.3	53.4	dB(A)
08:00 - 09:00	62.5	85.0	54.7	dB(A)
09:00 - 10:00	65.3	86.0	56.0	dB(A)
$L_{eq}$ 24 hr.	59.4	-	-	dB(A)
$L_{dn\#}$	63.6	-	-	dB(A)
Maximum	-	89.3	-	dB(A)
Standard	70 <sup>1</sup> , 70 <sup>2</sup>	115 <sup>1</sup> , 115 <sup>2</sup>	-	dB(A)

**REMARK :** <sup>3</sup> Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory

<sup>1</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)

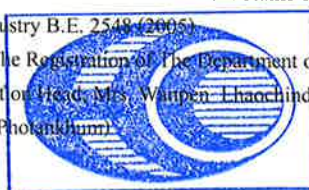
<sup>2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works

(Ms. Thanatporn Klinsopon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)

(Measurement By Mr. Tummarut Photankhum)

<sup>3</sup> Start Time



บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Approved By.....  
(MRS. WANPEN LHAOCHINDAWAT)

22/11/2022

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

**TEST REPORT**

CUSTOMER : GC Glycol Co., Ltd  
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 00443359 : Type 2

SAMPLE NO. : 33960  
MEASURING DATE : 07-08/11/2022  
RECEIVED DATE : 10/11/2022  
REPORTED DATE : 22/11/2022

TIME \ DATE	07-08/11/2022 ( $L_{eq}$ )	07-08/11/2022 ( $L_{max}$ )	07-08/11/2022 ( $L_{90\#}$ )	UNIT
10:00 - 11:00 <sup>1/3</sup>	62.0	76.5	54.6	dB(A)
11:00 - 12:00	61.2	77.7	54.6	dB(A)
12:00 - 13:00	62.2	88.4	53.7	dB(A)
13:00 - 14:00	61.1	77.7	53.4	dB(A)
14:00 - 15:00	62.6	90.4	53.7	dB(A)
15:00 - 16:00	60.6	81.9	53.7	dB(A)
16:00 - 17:00	61.1	81.8	54.3	dB(A)
17:00 - 18:00	63.0	91.8	53.1	dB(A)
18:00 - 19:00	63.3	86.8	53.5	dB(A)
19:00 - 20:00	64.2	85.9	53.5	dB(A)
20:00 - 21:00	61.5	82.8	53.9	dB(A)
21:00 - 22:00	62.5	88.4	54.2	dB(A)
22:00 - 23:00	59.6	77.6	54.5	dB(A)
23:00 - 00:00	58.6	79.2	54.4	dB(A)
00:00 - 01:00	60.7	87.6	53.9	dB(A)
01:00 - 02:00	55.9	75.5	52.8	dB(A)
02:00 - 03:00	55.8	77.2	52.7	dB(A)
03:00 - 04:00	54.6	74.7	52.9	dB(A)
04:00 - 05:00	54.3	69.3	53.0	dB(A)
05:00 - 06:00	54.7	71.0	53.4	dB(A)
06:00 - 07:00	54.9	75.2	53.3	dB(A)
07:00 - 08:00	57.4	82.1	53.8	dB(A)
08:00 - 09:00	59.0	75.3	54.2	dB(A)
09:00 - 10:00	65.7	87.2	56.0	dB(A)
$L_{eq}$ 24 hr.	60.9	-	-	dB(A)
$L_{dn\#}$	64.8	-	-	dB(A)
Maximum	-	91.8	-	dB(A)
Standard	$70^{1/1}, 70^{1/2}$	$115^{1/1}, 115^{1/2}$	-	dB(A)

**REMARK :** <sup>1/3</sup> Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory

<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)

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Ms. Thanatporn Klinsonop is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)  
(Measurement By Mr. Tummarut Photakhum)

<sup>1/3</sup> Start Time



Approved By:   
(MRS. WANPEN LHAOCHINDAWAT)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

22/11/2022

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

**TEST REPORT**

CUSTOMER : GC Glycol Co., Ltd  
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 00443359 : Type 2

SAMPLE NO. : 33961  
MEASURING DATE : 08-09/11/2022  
RECEIVED DATE : 10/11/2022  
REPORTED DATE : 22/11/2022

TIME \ DATE	08-09/11/2022 ( $L_{eq}$ )	08-09/11/2022 ( $L_{max}$ )	08-09/11/2022 ( $L_{90\#}$ )	UNIT
10:00 - 11:00 <sup>1/3</sup>	62.9	79.9	55.2	dB(A)
11:00 - 12:00	61.8	80.6	54.5	dB(A)
12:00 - 13:00	61.1	79.4	54.0	dB(A)
13:00 - 14:00	61.8	87.4	54.0	dB(A)
14:00 - 15:00	60.2	78.2	53.6	dB(A)
15:00 - 16:00	60.3	81.9	53.7	dB(A)
16:00 - 17:00	60.3	81.2	54.2	dB(A)
17:00 - 18:00	60.4	89.5	54.6	dB(A)
18:00 - 19:00	61.9	79.7	54.8	dB(A)
19:00 - 20:00	63.9	80.2	55.1	dB(A)
20:00 - 21:00	63.3	90.4	54.6	dB(A)
21:00 - 22:00	63.4	89.8	54.6	dB(A)
22:00 - 23:00	60.5	81.4	54.5	dB(A)
23:00 - 00:00	58.3	87.4	53.5	dB(A)
00:00 - 01:00	57.2	75.5	52.9	dB(A)
01:00 - 02:00	56.6	77.7	52.7	dB(A)
02:00 - 03:00	54.9	74.5	52.8	dB(A)
03:00 - 04:00	54.3	73.9	52.7	dB(A)
04:00 - 05:00	54.2	73.5	53.0	dB(A)
05:00 - 06:00	54.8	77.6	52.8	dB(A)
06:00 - 07:00	54.2	74.7	52.9	dB(A)
07:00 - 08:00	56.1	80.1	53.1	dB(A)
08:00 - 09:00	59.9	79.3	53.9	dB(A)
09:00 - 10:00	64.1	82.5	56.1	dB(A)
$L_{eq}$ 24 hr.	60.5	-	-	dB(A)
$L_{dn\#}$	64.3	-	-	dB(A)
Maximum	-	90.4	-	dB(A)
Standard	70 <sup>1/1</sup> , 70 <sup>1/2</sup>	115 <sup>1/1</sup> , 115 <sup>1/2</sup>	-	dB(A)

**REMARK :** <sup>1/3</sup> Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory

<sup>1/1</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)

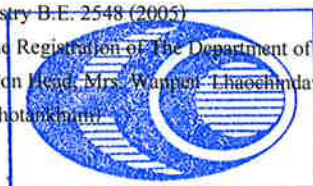
<sup>1/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works

(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)

(Measurement By Mr. Tummarut Photankum)

<sup>1/3</sup> Start Time



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

22/11/2022

REPORTED TEST 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 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 00443359 : Type 2

SAMPLE NO. : 33962  
MEASURING DATE : 09-10/11/2022  
RECEIVED DATE : 10/11/2022  
REPORTED DATE : 22/11/2022

TIME \ DATE	09-10/11/2022 ( $L_{eq}$ )	09-10/11/2022 ( $L_{max}$ )	09-10/11/2022 ( $L_{90\#}$ )	UNIT
10:00 - 11:00 <sup>3</sup>	63.2	85.8	54.8	dB(A)
11:00 - 12:00	61.3	87.7	53.4	dB(A)
12:00 - 13:00	60.4	78.7	53.4	dB(A)
13:00 - 14:00	61.0	77.3	53.5	dB(A)
14:00 - 15:00	61.7	79.7	53.3	dB(A)
15:00 - 16:00	60.6	81.5	53.1	dB(A)
16:00 - 17:00	60.7	87.0	53.0	dB(A)
17:00 - 18:00	59.6	76.5	53.9	dB(A)
18:00 - 19:00	60.5	80.8	55.0	dB(A)
19:00 - 20:00	63.3	81.4	55.0	dB(A)
20:00 - 21:00	61.7	82.2	54.3	dB(A)
21:00 - 22:00	64.0	91.8	54.4	dB(A)
22:00 - 23:00	60.7	79.0	54.4	dB(A)
23:00 - 00:00	59.9	81.7	53.8	dB(A)
00:00 - 01:00	60.2	90.1	53.6	dB(A)
01:00 - 02:00	56.3	75.2	53.1	dB(A)
02:00 - 03:00	55.2	73.3	53.4	dB(A)
03:00 - 04:00	54.4	74.0	52.7	dB(A)
04:00 - 05:00	55.8	79.6	52.6	dB(A)
05:00 - 06:00	54.0	73.1	52.3	dB(A)
06:00 - 07:00	56.2	77.0	53.1	dB(A)
07:00 - 08:00	55.4	74.2	53.1	dB(A)
08:00 - 09:00	58.2	83.3	53.3	dB(A)
09:00 - 10:00	63.6	82.8	55.0	dB(A)
$L_{eq}$ 24 hr.	60.4	-	-	dB(A)
$L_{dn\#}$	64.9	-	-	dB(A)
Maximum	-	91.8	-	dB(A)
Standard	70 <sup>1/1</sup> , 70 <sup>1/2</sup>	115 <sup>1/1</sup> , 115 <sup>1/2</sup>	-	dB(A)

**REMARK :** Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory

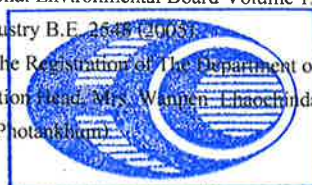
<sup>1/1</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)

<sup>1/2</sup> Notification of Ministry of the Industry B.E. 2545 (2003)

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works

(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wannan Lhaochindawat is Technical Management)

(Measurement By Mr. Tummarut Photankham)



บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Approved By:   
(MRS. WANPEN LHAOCHINDAWAT)

22/11/2022

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**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 00310456 : Type 2

SAMPLE NO. : 33949  
MEASURING DATE : 03-04/11/2022  
RECEIVED DATE : 10/11/2022  
REPORTED DATE : 22/11/2022

TIME \ DATE	03-04/11/2022 ( $L_{eq}$ )	03-04/11/2022 ( $L_{max}$ )	03-04/11/2022 ( $L_{90\#}$ )	UNIT
10:50 - 11:50 <sup>1/3</sup>	66.7	95.2	58.4	dB(A)
11:50 - 12:50	61.9	90.9	58.1	dB(A)
12:50 - 13:50	65.1	87.4	59.2	dB(A)
13:50 - 14:50	64.9	93.3	60.3	dB(A)
14:50 - 15:50	66.3	92.2	59.9	dB(A)
15:50 - 16:50	63.6	88.2	59.8	dB(A)
16:50 - 17:50	65.1	88.5	61.1	dB(A)
17:50 - 18:50	63.8	84.9	60.3	dB(A)
18:50 - 19:50	66.3	90.3	59.9	dB(A)
19:50 - 20:50	63.1	90.3	58.6	dB(A)
20:50 - 21:50	61.9	84.7	59.0	dB(A)
21:50 - 22:50	62.3	86.0	60.2	dB(A)
22:50 - 23:50	62.5	90.0	59.3	dB(A)
23:50 - 00:50	60.5	74.6	58.9	dB(A)
00:50 - 01:50	61.1	83.4	58.6	dB(A)
01:50 - 02:50	65.5	80.7	58.6	dB(A)
02:50 - 03:50	61.8	76.5	58.9	dB(A)
03:50 - 04:50	62.4	80.9	60.1	dB(A)
04:50 - 05:50	63.5	82.9	59.2	dB(A)
05:50 - 06:50	63.4	82.1	59.7	dB(A)
06:50 - 07:50	62.7	86.3	58.9	dB(A)
07:50 - 08:50	65.3	92.5	59.1	dB(A)
08:50 - 09:50	63.7	85.0	58.6	dB(A)
09:50 - 10:50	63.4	82.0	58.7	dB(A)
$L_{eq}$ 24 hr.	63.9	-	-	dB(A)
$L_{dn\#}$	69.5	-	-	dB(A)
Maximum	-	95.2	-	dB(A)
Standard	70 <sup>1/1</sup> , 70 <sup>1/2</sup>	115 <sup>1/1</sup> , 115 <sup>1/2</sup>	-	dB(A)

**REMARK :** Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory

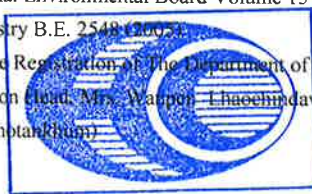
<sup>1/1</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)

<sup>1/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works

(Ms. Thanatporn Klinsoopon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)

(Measurement By Mr. Tummarut Photankhurn)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

22/11/2022

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WITHOUT THE WRITTEN APPROVAL LABORATORY

**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 00310456 : Type 2

SAMPLE NO. : 33950  
MEASURING DATE : 04-05/11/2022  
RECEIVED DATE : 10/11/2022  
REPORTED DATE : 22/11/2022

TIME \ DATE	04-05/11/2022 ( $L_{eq}$ )	04-05/11/2022 ( $L_{max}$ )	04-05/11/2022 ( $L_{90\#}$ )	UNIT
10:50 - 11:50 <sup>3</sup>	64.4	84.6	58.6	dB(A)
11:50 - 12:50	62.2	89.1	57.6	dB(A)
12:50 - 13:50	62.0	81.4	58.1	dB(A)
13:50 - 14:50	64.0	81.1	60.3	dB(A)
14:50 - 15:50	65.2	92.4	60.7	dB(A)
15:50 - 16:50	64.4	90.6	60.0	dB(A)
16:50 - 17:50	63.8	80.7	60.4	dB(A)
17:50 - 18:50	63.4	86.4	60.4	dB(A)
18:50 - 19:50	63.7	91.9	60.6	dB(A)
19:50 - 20:50	63.3	93.9	59.6	dB(A)
20:50 - 21:50	61.6	87.2	59.3	dB(A)
21:50 - 22:50	61.8	85.5	59.1	dB(A)
22:50 - 23:50	60.8	82.5	59.0	dB(A)
23:50 - 00:50	61.4	86.3	59.0	dB(A)
00:50 - 01:50	62.9	85.9	58.7	dB(A)
01:50 - 02:50	61.2	84.9	58.9	dB(A)
02:50 - 03:50	61.6	83.8	59.3	dB(A)
03:50 - 04:50	60.8	81.6	59.0	dB(A)
04:50 - 05:50	63.7	76.7	59.0	dB(A)
05:50 - 06:50	62.8	85.3	59.3	dB(A)
06:50 - 07:50	65.2	84.7	59.2	dB(A)
07:50 - 08:50	64.2	84.8	59.2	dB(A)
08:50 - 09:50	65.7	85.7	60.0	dB(A)
09:50 - 10:50	63.3	87.2	59.1	dB(A)
$L_{eq}$ 24 hr.	63.3	-	-	dB(A)
$L_{dn\#}$	68.7	-	-	dB(A)
Maximum	-	93.9	-	dB(A)
Standard	70 <sup>1/1</sup> , 70 <sup>1/2</sup>	115 <sup>1/1</sup> , 115 <sup>1/2</sup>	-	dB(A)

**REMARK :** Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory

<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  
(Ms. Thanatporn Klinsoopon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)  
(Measurement By Mr. Tummarut Phomkhong)



Approved By:   
(MRS. WANPEN LHAOCHINDAWAT)

22/11/2022

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด  
REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY



ACCREDITED  
ISO 9001 / ISO 14001

## EASTERN THAI CONSULTING 1992 CO., LTD.

683 Moo 11 Sukhapibarn 8 Rd., Nongkham, Sriracha, Chonburi 20230

Tel. 0-3848-1197-8, 0-3876-3031-2 Fax : 0-3848-2095 E-mail : marketing@etc1992.com



NSC-TISI-TIS 17025

TESTING 0031

Request No. LA65-R1150

Report No. R6511-2741

### 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 00310456 : Type 2

SAMPLE NO. : 33951  
MEASURING DATE : 05-06/11/2022  
RECEIVED DATE : 10/11/2022  
REPORTED DATE : 22/11/2022

TIME \ DATE	05-06/11/2022 ( $L_{eq}$ )	05-06/11/2022 ( $L_{max}$ )	05-06/11/2022 ( $L_{90\#}$ )	UNIT
10:50 - 11:50 <sup>1/3</sup>	63.2	85.9	59.3	dB(A)
11:50 - 12:50	64.2	88.8	60.0	dB(A)
12:50 - 13:50	62.7	89.4	58.5	dB(A)
13:50 - 14:50	63.1	87.9	58.8	dB(A)
14:50 - 15:50	63.2	84.9	58.8	dB(A)
15:50 - 16:50	66.5	95.5	59.5	dB(A)
16:50 - 17:50	64.6	85.1	58.9	dB(A)
17:50 - 18:50	62.4	81.4	58.9	dB(A)
18:50 - 19:50	61.5	84.3	58.0	dB(A)
19:50 - 20:50	63.3	90.2	58.7	dB(A)
20:50 - 21:50	63.3	94.4	59.2	dB(A)
21:50 - 22:50	61.5	80.2	58.8	dB(A)
22:50 - 23:50	60.9	78.2	59.0	dB(A)
23:50 - 00:50	60.3	74.2	58.7	dB(A)
00:50 - 01:50	61.1	83.4	58.5	dB(A)
01:50 - 02:50	60.6	81.8	58.9	dB(A)
02:50 - 03:50	63.9	91.1	58.8	dB(A)
03:50 - 04:50	61.3	76.6	59.0	dB(A)
04:50 - 05:50	61.8	80.2	58.7	dB(A)
05:50 - 06:50	61.0	82.6	58.6	dB(A)
06:50 - 07:50	61.5	84.1	58.6	dB(A)
07:50 - 08:50	61.3	81.2	58.1	dB(A)
08:50 - 09:50	61.8	86.1	58.1	dB(A)
09:50 - 10:50	61.9	84.0	58.2	dB(A)
$L_{eq}$ 24 hr.	62.6	-	-	dB(A)
$L_{dn\#}$	68.2	-	-	dB(A)
Maximum	-	95.5	-	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 :** Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory

<sup>1/1</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)

<sup>2/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works

(Ms. Thanatporn Klinsopon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)

(Measurement By Mr. Tummarut Pholakhum)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

22/11/2022

REPORTED TEST 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 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 00310456 : Type 2

SAMPLE NO. : 33952  
MEASURING DATE : 06-07/11/2022  
RECEIVED DATE : 10/11/2022  
REPORTED DATE : 22/11/2022

TIME \ DATE	06-07/11/2022 ( $L_{eq}$ )	06-07/11/2022 ( $L_{max}$ )	06-07/11/2022 ( $L_{90\#}$ )	UNIT
10:50 - 11:50 <sup>/3</sup>	61.6	81.0	58.4	dB(A)
11:50 - 12:50	61.8	77.2	59.7	dB(A)
12:50 - 13:50	61.8	77.9	59.7	dB(A)
13:50 - 14:50	63.8	75.8	61.6	dB(A)
14:50 - 15:50	63.8	83.3	60.7	dB(A)
15:50 - 16:50	64.1	75.5	60.3	dB(A)
16:50 - 17:50	68.1	96.2	58.9	dB(A)
17:50 - 18:50	63.0	78.1	59.2	dB(A)
18:50 - 19:50	61.4	76.9	59.6	dB(A)
19:50 - 20:50	61.2	79.8	59.5	dB(A)
20:50 - 21:50	61.2	86.4	58.9	dB(A)
21:50 - 22:50	60.7	87.8	59.0	dB(A)
22:50 - 23:50	60.3	73.9	59.2	dB(A)
23:50 - 00:50	60.3	82.0	59.0	dB(A)
00:50 - 01:50	60.4	82.9	59.0	dB(A)
01:50 - 02:50	60.7	84.2	59.1	dB(A)
02:50 - 03:50	62.4	76.9	59.1	dB(A)
03:50 - 04:50	60.6	80.3	59.3	dB(A)
04:50 - 05:50	63.2	88.7	59.5	dB(A)
05:50 - 06:50	61.6	84.4	59.5	dB(A)
06:50 - 07:50	62.0	87.3	58.9	dB(A)
07:50 - 08:50	63.8	85.2	58.6	dB(A)
08:50 - 09:50	64.9	86.1	59.5	dB(A)
09:50 - 10:50	63.3	88.9	58.1	dB(A)
$L_{eq}$ 24 hr.	62.8	-	-	dB(A)
$L_{dn\#}$	68.1	-	-	dB(A)
Maximum	-	96.2	-	dB(A)
Standard	70 <sup>/1</sup> , 70 <sup>/2</sup>	115 <sup>/1</sup> , 115 <sup>/2</sup>	-	dB(A)

**REMARK :** Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory

<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)

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works

(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)

(Measurement By Mr. Tummarut Photonsuwan)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

22/11/2022

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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**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 00310456 : Type 2

SAMPLE NO. : 33953  
MEASURING DATE : 07-08/11/2022  
RECEIVED DATE : 10/11/2022  
REPORTED DATE : 22/11/2022

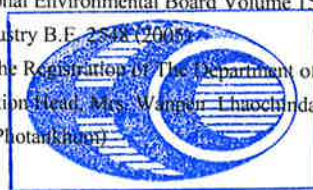
TIME \ DATE	07-08/11/2022 ( $L_{eq}$ )	07-08/11/2022 ( $L_{max}$ )	07-08/11/2022 ( $L_{90\#}$ )	UNIT
10:50 - 11:50 <sup>1/3</sup>	63.8	90.3	59.0	dB(A)
11:50 - 12:50	65.2	90.8	58.9	dB(A)
12:50 - 13:50	63.6	88.3	59.5	dB(A)
13:50 - 14:50	64.7	87.4	60.4	dB(A)
14:50 - 15:50	63.9	84.3	60.0	dB(A)
15:50 - 16:50	65.0	88.3	60.7	dB(A)
16:50 - 17:50	64.9	84.0	60.8	dB(A)
17:50 - 18:50	65.9	84.8	61.9	dB(A)
18:50 - 19:50	64.5	84.5	61.0	dB(A)
19:50 - 20:50	62.9	92.3	59.1	dB(A)
20:50 - 21:50	63.7	94.1	59.4	dB(A)
21:50 - 22:50	61.3	83.4	59.1	dB(A)
22:50 - 23:50	61.5	83.3	59.2	dB(A)
23:50 - 00:50	60.2	75.6	58.9	dB(A)
00:50 - 01:50	60.7	81.3	59.0	dB(A)
01:50 - 02:50	62.7	81.5	58.6	dB(A)
02:50 - 03:50	59.9	73.2	58.6	dB(A)
03:50 - 04:50	60.6	80.6	58.5	dB(A)
04:50 - 05:50	63.3	79.8	58.7	dB(A)
05:50 - 06:50	64.4	89.8	58.8	dB(A)
06:50 - 07:50	64.9	85.8	60.7	dB(A)
07:50 - 08:50	65.6	85.8	62.7	dB(A)
08:50 - 09:50	68.0	85.9	64.4	dB(A)
09:50 - 10:50	67.5	90.9	64.5	dB(A)
$L_{eq}$ 24 hr.	64.2	-	-	dB(A)
$L_{dn\#}$	68.9	-	-	dB(A)
Maximum	-	94.1	-	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>1/3</sup> Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory

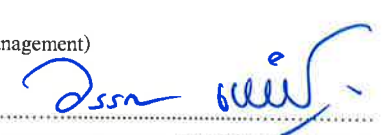
<sup>1/1</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)

<sup>1/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Ms. Thanatporn Klinsoopon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)  
(Measurement By Mr. Tummarut Photankhoon)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

<sup>1/3</sup> Start Time  
Approved By:   
(MRS. WAPEN LHAOCHINDAWAT)  
22/11/2022

REPORTED TEST 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 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 00310456 : Type 2

SAMPLE NO. : 33954  
MEASURING DATE : 08-09/11/2022  
RECEIVED DATE : 10/11/2022  
REPORTED DATE : 22/11/2022

TIME \ DATE	08-09/11/2022 ( $L_{eq}$ )	08-09/11/2022 ( $L_{max}$ )	08-09/11/2022 ( $L_{90\#}$ )	UNIT
10:50 - 11:50 <sup>13</sup>	65.8	85.6	63.5	dB(A)
11:50 - 12:50	67.0	97.8	62.7	dB(A)
12:50 - 13:50	65.4	90.4	63.1	dB(A)
13:50 - 14:50	66.6	88.3	63.3	dB(A)
14:50 - 15:50	67.8	84.6	65.0	dB(A)
15:50 - 16:50	68.6	88.5	66.1	dB(A)
16:50 - 17:50	68.7	86.6	65.7	dB(A)
17:50 - 18:50	67.9	86.3	65.8	dB(A)
18:50 - 19:50	68.5	96.9	66.3	dB(A)
19:50 - 20:50	68.3	78.7	66.5	dB(A)
20:50 - 21:50	68.6	91.1	66.7	dB(A)
21:50 - 22:50	66.7	75.0	65.1	dB(A)
22:50 - 23:50	66.2	75.2	64.4	dB(A)
23:50 - 00:50	65.8	73.2	64.2	dB(A)
00:50 - 01:50	66.9	84.6	63.8	dB(A)
01:50 - 02:50	65.4	78.1	63.6	dB(A)
02:50 - 03:50	69.9	81.3	67.3	dB(A)
03:50 - 04:50	68.8	80.2	66.2	dB(A)
04:50 - 05:50	69.5	89.8	66.6	dB(A)
05:50 - 06:50	69.3	80.7	66.7	dB(A)
06:50 - 07:50	67.0	81.4	63.6	dB(A)
07:50 - 08:50	65.7	81.0	63.1	dB(A)
08:50 - 09:50	66.5	87.6	63.4	dB(A)
09:50 - 10:50	66.1	90.7	62.7	dB(A)
$L_{eq}$ 24 hr.	67.6	-	-	dB(A)
$L_{dn\#}$	74.3	-	-	dB(A)
Maximum	-	97.8	-	dB(A)
Standard	70 <sup>11</sup> , 70 <sup>12</sup>	115 <sup>11</sup> , 115 <sup>12</sup>	-	dB(A)

**REMARK :** Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory

<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)

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works

(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)

(Measurement By Mr. Tummarut Photankum)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

22/11/2022

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**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 00310456 : Type 2

SAMPLE NO. : 33955  
MEASURING DATE : 09-10/11/2022  
RECEIVED DATE : 10/11/2022  
REPORTED DATE : 22/11/2022

TIME \ DATE	09-10/11/2022 ( $L_{eq}$ )	09-10/11/2022 ( $L_{max}$ )	09-10/11/2022 ( $L_{90\#}$ )	UNIT
10:50 - 11:50 <sup>1/3</sup>	65.4	87.1	62.5	dB(A)
11:50 - 12:50	66.0	82.1	63.3	dB(A)
12:50 - 13:50	65.2	88.4	63.1	dB(A)
13:50 - 14:50	65.7	88.9	62.2	dB(A)
14:50 - 15:50	65.2	86.2	62.8	dB(A)
15:50 - 16:50	69.1	89.4	66.2	dB(A)
16:50 - 17:50	68.0	88.0	65.2	dB(A)
17:50 - 18:50	68.3	98.5	65.7	dB(A)
18:50 - 19:50	68.1	97.9	65.6	dB(A)
19:50 - 20:50	66.0	85.4	64.0	dB(A)
20:50 - 21:50	66.9	88.2	65.0	dB(A)
21:50 - 22:50	65.7	82.2	64.1	dB(A)
22:50 - 23:50	65.1	77.8	63.5	dB(A)
23:50 - 00:50	65.1	81.7	63.6	dB(A)
00:50 - 01:50	65.0	82.3	63.7	dB(A)
01:50 - 02:50	66.9	83.0	63.5	dB(A)
02:50 - 03:50	65.1	82.4	63.3	dB(A)
03:50 - 04:50	64.8	82.3	63.0	dB(A)
04:50 - 05:50	65.1	82.3	62.7	dB(A)
05:50 - 06:50	64.5	78.7	62.3	dB(A)
06:50 - 07:50	65.7	89.1	62.8	dB(A)
07:50 - 08:50	65.9	84.7	63.3	dB(A)
08:50 - 09:50	66.4	87.7	63.1	dB(A)
09:50 - 10:50	66.9	97.3	62.8	dB(A)
$L_{eq}$ 24 hr.	66.3	-	-	dB(A)
$L_{dn\#}$	72.0	-	-	dB(A)
Maximum	-	98.5	-	dB(A)
Standard	70 <sup>1/1</sup> , 70 <sup>1/2</sup>	115 <sup>1/1</sup> , 115 <sup>1/2</sup>	-	dB(A)

**REMARK :** # Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory

<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)

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works

(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)

(Measurement By Mr. Tummarut Phoraknum)

<sup>1/3</sup> Start Time



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....  
(MRS. WANPEN LHAOCHINDAWAT)  
22/11/2022

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Request No. ATR6508024

Report No. 6508-0393

## 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 (คุณพัฒนพงศ์ ชมเชยโถม)

SAMPLING DATE : 10/08/2022 SAMPLE NO : A65080393

RECEIVED DATE : 16/08/2022 SAMPLING TIME : 07:00-19:00

SAMPLING INSTRUMENT : Passive Sampling TESTED DATE : 16/08/2022 – 22/08/2022

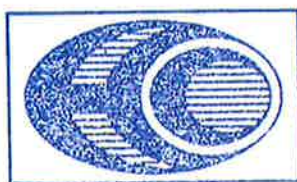
REPORTED DATE : 25/08/2022

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. Nitchaphon Tonglor)  
Analysed By SECOT Co.,Ltd.



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



(Miss Thanaporn Klinsohon)

25/08/2022

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. ATR6508024

Report No. 6508-0394

## 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 (คุณคมสร พรมวงศ์)

SAMPLING DATE : 10/08/2022 SAMPLE NO : A65080394

RECEIVED DATE : 16/08/2022 SAMPLING TIME : 07:00-19:00

SAMPLING INSTRUMENT : Passive Sampling TESTED DATE : 16/08/2022 – 22/08/2022

REPORTED DATE : 25/08/2022

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. Nitchaphon Tonglor)  
Analysed By SECOT Co.,Ltd.



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



(Miss Thanatporn Klinsohon)

25/08/2022

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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ACCREDITED  
ISO 9001 / ISO 14001

## EASTERN THAI CONSULTING 1992 CO., LTD.

683 Moo 11 Sukhapibarn 8 Rd., Nongkham, Sriracha, Chonburi 20230  
Tel. 0-3848-1197-8, 0-3876-3031-2 Fax : 0-3848-2095 E-mail : marketing@etc1992.com



NSC-TISI-TIS 17025  
TESTING 0031

Request No. LA65-R0840

Report No. R6508-2056

### 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-115  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  8 hr. &  $L_{max}$  SAMPLE NO. : 22654  
DETERMINATION METHOD : SO 11202:2010 MEASURING DATE : 11/08/2022  
INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 11/08/2022  
S/N G300957 : Type 2 REPORTED DATE : 25/08/2022

MEASURING TIME	RESULT		UNIT
	$L_{eq}$ 1 hr.	$L_{max}$	
08:00-09:00	80.3	84.2	dB(A)
09:00-10:00	80.2	81.6	dB(A)
10:00-11:00	80.4	81.8	dB(A)
11:00-12:00	80.1	82.0	dB(A)
12:00-13:00	80.0	82.0	dB(A)
13:00-14:00	79.9	81.8	dB(A)
14:00-15:00	79.8	81.8	dB(A)
15:00-16:00	80.0	81.3	dB(A)
$L_{eq}$ 8 hr.	80.1	-	dB(A)
Standard	90 <sup>11</sup>	140 <sup>11</sup> , 115 <sup>12</sup>	dB(A)

**REMARK :** <sup>11</sup> Notification of The Ministry of Industry B.E. 2546 (2003)

<sup>12</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)

\* Ms. Thanatporm Klinsopon is Section Head / Mrs. Wanpen Lhaochindawat is Technical Management  
(Measurement By Ms. Winida Jampaton)



บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Approved By

*Wanpen Lhaochindawat*

(MRS. WANPEN LHAOCHINDAWAT)

25/08/2022

REPORTED TEST 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 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. : 22656  
DETERMINATION METHOD : ISO 11202:2010 MEASURING DATE : 11/08/2022  
INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 11/08/2022  
S/N G301660 : Type 2 REPORTED DATE : 25/08/2022

MEASURING TIME	RESULT		UNIT
	$L_{eq}$ 1 hr.	$L_{max}$	
08:00-09:00	81.3	86.2	dB(A)
09:00-10:00	81.3	81.7	dB(A)
10:00-11:00	81.3	81.7	dB(A)
11:00-12:00	81.3	81.7	dB(A)
12:00-13:00	81.3	81.6	dB(A)
13:00-14:00	81.3	81.9	dB(A)
14:00-15:00	81.3	81.6	dB(A)
15:00-16:00	81.3	81.7	dB(A)
$L_{eq}$ 8 hr.	81.3	-	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)  
\* Ms. Thanatporn Klinsoon is Section Head / Mrs. Wanpen Lhaochindawat is Technical Management  
(Measurement By Ms. Winida Jampaton)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

25/08/2022

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

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WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. LA65-R0963

Report No. R6509-4149

## 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 (จุดบันทึก บัญชี ID 26005428)  
MEASURING DATE : 21/09/2022 SAMPLE NO. : 28241  
RECEIVED DATE : 21/09/2022 SAMPLING TIME : 07:00-19:00  
SAMPLING INSTRUMENT : Noise dosimeter : S/N CB0643 REPORTED DATE : 27/09/2022

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	63.2	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	86.2	115 <sup>/3</sup>	dB(A)
12 Hour dose	1.00	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	65.0	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)

27/09/2022

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

Request No. LA65-R0963

Report No. R6509-4150

## 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 (คุณสมบัติ ทาอ่อน ID 26006122)  
 MEASURING DATE : 21/09/2022 SAMPLE NO. : 28242  
 RECEIVED DATE : 21/09/2022 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Noise dosimeter : S/N CB0644 REPORTED DATE : 27/09/2022

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	76.9	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	92.2	115 <sup>/3</sup>	dB(A)
12 Hour dose	23.00	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	78.6	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)

27/09/2022

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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Request No. LA65-R0840

Report No. R6508-2054

## 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 (คูณมานพ โอภาชาติ ID 26003077)  
MEASURING DATE : 11/08/2022 SAMPLE NO. : 22652  
RECEIVED DATE : 11/08/2022 SAMPLING TIME : 07:00-19:00  
SAMPLING INSTRUMENT : Noise dosimeter : S/N CB0641 REPORTED DATE : 25/08/2022

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	79.7	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	93.3	115 <sup>/3</sup>	dB(A)
12 Hour dose	44.40	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	81.5	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. Winida Jampaton)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

25/08/2022

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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Request No. LA65-R0840

Report No. R6508-2055

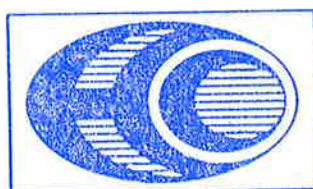
## TEST REPORT

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 (จุดตรวจศรีแก้ว ID 26008332)  
 MEASURING DATE : 11/08/2022 SAMPLE NO. : 22653  
 RECEIVED DATE : 11/08/2022 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Noise dosimeter : S/N CB0640 REPORTED DATE : 25/08/2022

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	80.1	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	95.9	115 <sup>/3</sup>	dB(A)
12 Hour dose	48.90	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	81.9	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. Winida Jampaton)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

25/08/2022

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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Request No. ATR6508024

Report No. 6508-0388

## 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 : 10/08/2022 SAMPLE NO. : A65080388  
 RECEIVED DATE : 16/08/2022 SAMPLING TIME : 07:45-19:45  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.05 L/min TESTED DATE : 16/08/2022-22/08/2022  
 Serial No. 20100401018 REPORTED DATE : 25/08/2022

PARAMETER**	TEST METHOD	RESULT	STD <sup>1</sup>	UNIT
Carbon Dioxide	Non-Dispersive Infrared Method	1,204.2	9,000	mg/m <sup>3</sup>
		669.0	5,000	ppm

## REMARK:

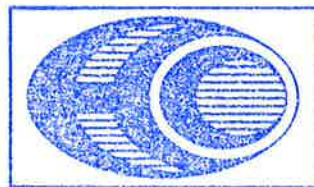
<sup>1</sup> Occupational Safety and Health Administration (OSHA) ; Standard Number 1910.1000 Table Z-1 Limits for Air Contaminants.

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

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Nitchaphon Tonglor)

Analysed By SECOT Co.,Ltd.

GPS = Sampling at UTM 47 P 731050E 1404810N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Thanatporn Klinsopon)

25/08/2022

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



Request No. ATR6511019

Report No. 6511-0360

## 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 : 03/11/2022 SAMPLE NO. : A65110360  
 RECEIVED DATE : 08/11/2022 SAMPLING TIME : 08:50-20:50  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.05 L/min TESTED DATE : 08/11/2022-10/11/2022  
 Serial No. 218408 REPORTED DATE : 22/11/2022

PARAMETER**	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Carbon Dioxide	Non-Dispersive Infrared Method	1,688.4	9,000	mg/m <sup>3</sup>
		938.0	5,000	ppm

## REMARK:

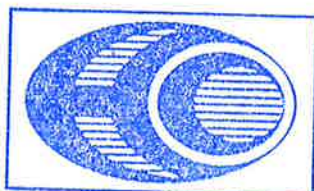
<sup>/1</sup> Occupational Safety and Health Administration (OSHA) ; Standard Number 1910.1000 Table Z-1 Limits for Air Contaminants.

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

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Nitchaphon Tonglor)

Analysed By SECOT Co.,Ltd.

GPS = Sampling at UTM 47 P 731050E 1404810N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Thanatporn Klinsoon)

22/11/2022

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

Request No. ATR6508024

Report No. 6508-0389

## 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 : 10/08/2022 SAMPLE NO. : A65080389  
 RECEIVED DATE : 16/08/2022 SAMPLING TIME : 07:48-19:48  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.05 L/min TESTED DATE : 16/08/2022-22/08/2022  
 Serial No. 20180903094 REPORTED DATE : 25/08/2022

PARAMETER**	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Carbon Dioxide	Non-Dispersive Infrared Method	1,184.4	9,000	mg/m <sup>3</sup>
		658.0	5,000	ppm

## REMARK:

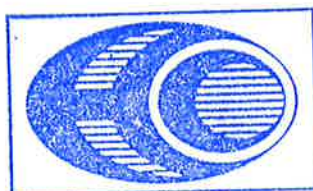
<sup>/1</sup> Occupational Safety and Health Administration (OSHA) ; Standard Number 1910.1000 Table Z-1 Limits for Air Contaminants.

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

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Nitchaphon Tonglor)

Analysed By SECOT Co.,Ltd.

GPS = Sampling at UTM 47 P 731017E 1404785N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Thanaporn Klinsoon)

25/08/2022

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



Request No. ATR6511019

Report No. 6511-0361

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch16  
 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 NAME : CO2 Removal Unit (T-220)  
 SAMPLING DATE : 03/11/2022 SAMPLE NO. : A65110361  
 RECEIVED DATE : 08/11/2022 SAMPLING TIME : 08:54-20:54  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.05 L/min TESTED DATE : 08/11/2022-10/11/2022  
 Serial No. 218402 REPORTED DATE : 22/11/2022

PARAMETER**	TEST METHOD	RESULT	STD <sup>1/</sup>	UNIT
Carbon Dioxide	Non-Dispersive Infrared Method	1,456.2	9,000	mg/m <sup>3</sup>
		809.0	5,000	ppm

## REMARK:

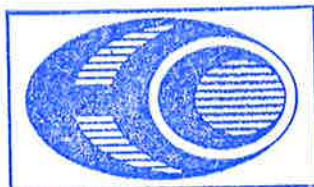
<sup>1/</sup> Occupational Safety and Health Administration (OSHA) ; Standard Number 1910.1000 Table Z-1 Limits for Air Contaminants.

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

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Nitchaphon Tonglor)

Analysed By SECOT Co.,Ltd.

GPS = Sampling at UTM 47 P 731017E 1404785N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By

(Miss Thanatporn Klinsopon)

22/11/2022

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

Request No. ATR6508024

Report No. 6508-0386

## 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 : 10/08/2022 SAMPLE NO. : A65080386  
 RECEIVED DATE : 16/08/2022 SAMPLING TIME : 07:42-19:42  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.05 L/min TESTED DATE : 16/08/2022-18/08/2022  
 Serial No. 218383 REPORTED DATE : 25/08/2022

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. Nitchaphon Tonglor)

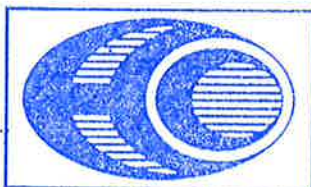
GPS = Sampling at UTM 47 P 731046E 1404821N

Examined By



(Miss Thanatporn Klinsohon)

25/08/2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By



(Mr. Kawee Suthasub)

25/08/2022

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 THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
 WITHOUT THE WRITTEN APPROVAL LABORATORY



Request No. ATR6511019

Report No. 6511-0362

## 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 : 03/11/2022 SAMPLE NO. : A65110362  
 RECEIVED DATE : 08/11/2022 SAMPLING TIME : 08:51-20:51  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.05 L/min TESTED DATE : 08/11/2022-15/11/2022  
 Serial No. 218385 REPORTED DATE : 22/11/2022

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.

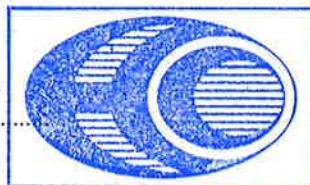
(Sampling By Mr. Nitchaphon Tonglor)

GPS = Sampling at UTM 47 P 731046E 1404821N

Examined By

(Miss Thanatporn Klinsopon)

22/11/2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

22/11/2022

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Request No. ATR6508024

Report No. 6508-0387

## 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 : 10/08/2022 SAMPLE NO. : A65080387  
 RECEIVED DATE : 16/08/2022 SAMPLING TIME : 07:50-19:50  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.05 L/min TESTED DATE : 16/08/2022-18/08/2022  
 Serial No. 218411 REPORTED DATE : 25/08/2022

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. Nitchaphon Tonglor)

GPS = Sampling at UTM 47 P 731019E 1404725N

Examined By



(Miss Thanatporn Klinsoon)

25/08/2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By



(Mr. Kawee Suthasub)

25/08/2022

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Request No. ATR6511019

Report No. 6511-0363

## 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 : 03/11/2022 SAMPLE NO. : A65110363  
 RECEIVED DATE : 08/11/2022 SAMPLING TIME : 08:57-20:57  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.05 L/min TESTED DATE : 08/11/2022-15/11/2022  
 Serial No. 218432 REPORTED DATE : 22/11/2022

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. Nitchaphon Tonglor)

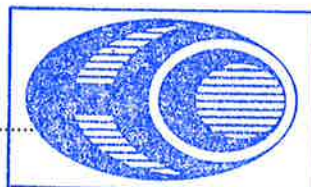
GPS = Sampling at UTM 47 P 731019E 1404725N

Examined By




(Miss Thanatporn Klinsopon)

22/11/2022



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By



(Mr. Kawee Suthasub)

22/11/2022

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Request No. ATR6508024

Report No. 6508-0390

**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 : A65080390

SAMPLING DATE : 10/08/2022      SAMPLING TIME : 07:53-19:53

RECEIVED DATE : 16/08/2022      TESTED DATE : 16/08/2022 – 22/08/2022

SAMPLING INSTRUMENT : Passive Sampling      REPORTED DATE : 25/08/2022

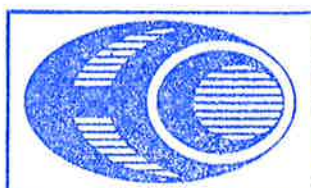
PARAMETER**	TEST METHOD	RESULT <sup>/2</sup>	STD <sup>/1</sup>	UNIT
Ethylene Oxide	OSHA 1010	ND	1.8	mg/m <sup>3</sup>
		ND	1.0	ppm

**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. Nitchaphon Tonglor)  
Analysed By SECOT Co.,Ltd. / GPS = Sampling at UTM 47 P 731019E 1404725N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



(Miss Thanatporn Klinson)

25/08/2022

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

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Request No. ATR6511019

Report No. 6511-0364

**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 : A65110364

SAMPLING DATE : 03/11/2022      SAMPLING TIME : 08:57-20:57

RECEIVED DATE : 08/11/2022      TESTED DATE : 08/11/2022 – 21/11/2022

SAMPLING INSTRUMENT : Passive Sampling      REPORTED DATE : 22/11/2022

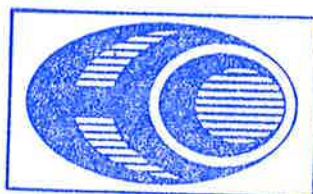
PARAMETER**	TEST METHOD	RESULT <sup>/2</sup>	STD <sup>/1</sup>	UNIT
Ethylene Oxide	OSHA 1010	ND	1.8	mg/m <sup>3</sup>
		ND	1.0	ppm

**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. Nitchaphon Tonglor)  
Analysed By SECOT Co.,Ltd. / GPS = Sampling at UTM 47 P 731019E 1404725N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By

(Miss Thanatporn Klinsopon)

22/11/2022

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Request No. ATR6508024

Report No. 6508-0391

**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 : รีมร้วโครงการด้านทิศตะวันตก SAMPLE NO : A65080391

SAMPLING DATE : 10/08/2022 SAMPLING TIME : 08:07-20:07

RECEIVED DATE : 16/08/2022 TESTED DATE : 16/08/2022 – 22/08/2022

SAMPLING INSTRUMENT : Passive Sampling REPORTED DATE : 25/08/2022

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. Nitchaphon Tonglor)  
Analysed By SECOT Co.,Ltd. / GPS = Sampling at UTM 47 P 730858E 1404823N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By .....

(Miss Thanatporn Klinsohon)

25/08/2022

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Request No. ATR6511019

Report No. 6511-0365

## 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 : A65110365

SAMPLING DATE : 03/11/2022 SAMPLING TIME : 09:10-21:10

RECEIVED DATE : 08/11/2022 TESTED DATE : 08/11/2022 – 21/11/2022

SAMPLING INSTRUMENT : Passive Sampling REPORTED DATE : 22/11/2022

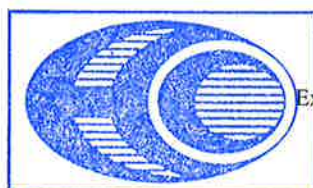
PARAMETER**	TEST METHOD	RESULT <sup>2</sup>	STD <sup>1</sup>	UNIT
Ethylene Oxide	OSHA 1010	ND	1.8	mg/m <sup>3</sup>
		ND	1.0	ppm

**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. Nitchaphon Tonglor)  
Analysed By SECOT Co.,Ltd. / GPS = Sampling at UTM 47 P 730858E 1404823N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



(Miss Thanatporn Klinsoon)

22/11/2022

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Request No. ATR6508024

Report No. 6508-0392

**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 : A65080392

SAMPLING DATE : 10/08/2022      SAMPLING TIME : 07:55-19:55

RECEIVED DATE : 16/08/2022      TESTED DATE : 16/08/2022 – 22/08/2022

SAMPLING INSTRUMENT : Passive Sampling      REPORTED DATE : 25/08/2022

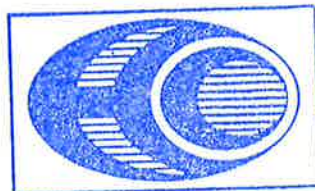
PARAMETER**	TEST METHOD	RESULT <sup>2</sup>	STD <sup>1</sup>	UNIT
Ethylene Oxide	OSHA 1010	ND	1.8	mg/m <sup>3</sup>
		ND	1.0	ppm

**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. Nitchaphon Tonglor)  
Analysed By SECOT Co.,Ltd. / GPS = Sampling at UTM 47 P 731004E 1404676N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



(Miss Thanatporn Klinsohon)

25/08/2022

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Request No. ATR6511019

Report No. 6511-0366

**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 : A65110366

SAMPLING DATE : 03/11/2022      SAMPLING TIME : 09:03-21:03

RECEIVED DATE : 08/11/2022      TESTED DATE : 08/11/2022 – 21/11/2022

SAMPLING INSTRUMENT : Passive Sampling      REPORTED DATE : 22/11/2022

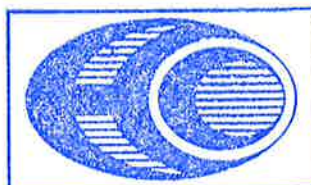
PARAMETER**	TEST METHOD	RESULT <sup>1/2</sup>	STD <sup>1/</sup>	UNIT
Ethylene Oxide	OSHA 1010	ND	1.8	mg/m <sup>3</sup>
		ND	1.0	ppm

**REMARK:**

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

<sup>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. Nitchaphon Tonglor)  
Analysed By SECOT Co.,Ltd. / GPS = Sampling at UTM 47 P 731004E 1404676N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By .....

(Miss Thanatporn Klinsoopon)

22/11/2022

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