

## ANALYSIS REPORT


**Customer Name** : NFC PCL.  
**Address** : No.2, I-2 Road, Map Ta Phut Industrial Estate, Muang Rayong, Rayong 21150  
**Project Name** : โครงการทำเทียบเรือ (ครั้งที่ 1)  
**Sampling Point** : บริเวณบ่อพักน้ำสุดท้าย  
**GPS. Coordinate** : UTM (WGS84) 47P 0732868 E, 1402794 N  
**Type of Sample** : Wastewater Sampling  
**Sampling Method** : Grab  
**Sampling Date** : March 14, 2022  
**Sampling Time** : 13:55  
**Sampling By** : Mr.Chatchai Yowapuy, Registration No.จ-099-จ-8845  
**Analyzed By** : Environment Research & Technology Co., Ltd. Laboratory Registration No.จ-099  
**Physical Properties** : สี ไม่มีสี, มีตะกอน, มีกลิ่น

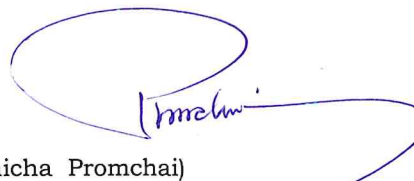
**Analysis No.** : WW1204/2565  
**Received Date** : March 17, 2022  
**Analytical Date** : March 17-25, 2022  
**Report Date** : March 28, 2022

Parameter	Unit	Method of Analysis <sup>1/</sup>	Result	Standard <sup>2/</sup>
pH	-	Electrometric Method	7.3	5.5-9.0
Total Suspended Solids	mg/l	Dried at 103-105°C	<5.0	50
Biochemical Oxygen Demand	mg/l	5-Day BOD Test, Membrane Electrode Method	<2.0	20
Oil and Grease	mg/l	Liquid-Liquid Partition, Gravimetric Method	1.6	5

**Remark** : <sup>1/</sup> Standard Method for Examination of Water and Wastewater, 23<sup>rd</sup> Edition, 2017.

<sup>2/</sup> Notification of the Ministry of Industry, B.E.2560 (2017), issued under Factory Act B.E.2535 (1992), published in the Royal Government Gazette No.134 Part 153D dated June 7, B.E.2560 (2017).

  
(Ms. Raiwin Posit)  
Laboratory Reviewer No.จ-099-จ-7665

  
(Ms. Panicha Promchai)  
Laboratory Supervisor No.จ-099-จ-2414

## ANALYSIS REPORT

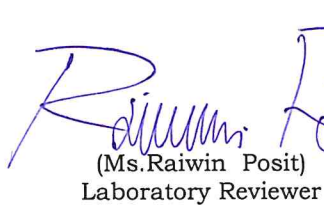
**Customer Name** : NFC PCL.  
**Address** : No.2, I-2 Road, Map Ta Phut Industrial Estate, Muang Rayong, Rayong 21150  
**Project Name** : โครงการทำเทียบเรือ (ครั้งที่ 1)  
**Sampling Point** : บริเวณบ่อพักน้ำสุดท้าย  
**GPS. Coordinate** : UTM (WGS84) 47P 0732868 E, 1402794 N  
**Type of Sample** : Wastewater Sampling  
**Sampling Method** : Grab  
**Sampling Date** : March 14, 2022  
**Sampling Time** : 13:55  
**Sampling By** : Mr.Chatchai Yowapuy  
**Analyzed By** : Environment Research & Technology Co., Ltd.  
**Physical Properties** : สี ไม่มีสี, มีตะกอน, มีกลิ่น

**Analysis No.** : WW1204/2565  
**Received Date** : March 17, 2022  
**Analytical Date** : March 17-25, 2022  
**Report Date** : March 28, 2022

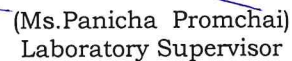
Parameter	Unit	Method of Analysis <sup>1/</sup>	Result	Standard <sup>2/</sup>
Ammonia-Nitrogen	mg/l	Distillation, Titrimetric Method	0.9	-
Nitrogen	mg/l	Macro Kjeldahl, Brucine, Colorimetric Method	23	-
Phosphate	mg/l	Ascorbic Acid Method	0.2	-
Phosphorus	mg/l	Ascorbic Acid Method	0.12	-
Potassium	mg/l	Digestion, Inductively Coupled Plasma Method	14	-
Sulfate	mg/l	Turbidimetric Method	163	-
Turbidity	NTU	Nephelometric Method	3.8	-
Total Coliform Bacteria	MPN/100 ml	Most Probable Number Method	<1.8	-
Benzene	mg/l	Purge and Trap Capillary-Column Gas Chromatography-Mass Spectrometry	<0.001	-

**Remark** : <sup>1/</sup> Standard Method for Examination of Water and Wastewater, 23<sup>rd</sup> Edition, 2017.

<sup>2/</sup> Notification of the Ministry of Industry, B.E.2560 (2017), issued under Factory Act B.E.2535 (1992), published in the Royal Government Gazette No.134 Part 153D dated June 7, B.E.2560 (2017).

  
(Ms. Raiwin Posit)  
Laboratory Reviewer



  
(Ms. Panicha Promchai)  
Laboratory Supervisor

## ANALYSIS REPORT


**Customer Name** : NFC PCL.  
**Address** : No.2, I-2 Road, Map Ta Phut Industrial Estate, Muang Rayong, Rayong 21150  
**Project Name** : โครงการทำเหมืองแร่ (ครั้งที่ 1)  
**Sampling Point** : บริเวณบ่อกักน้ำสุดท้าย  
**GPS. Coordinate** : UTM (WGS84) 47P 0732870 E, 1402795 N  
**Type of Sample** : Wastewater Sampling  
**Sampling Method** : Grab  
**Sampling Date** : June 10, 2022  
**Sampling Time** : 08:42  
**Sampling By** : Mr.Wanchana Seehamart, Registration No.จ-099-จ-7050  
**Analyzed By** : Environment Research & Technology Co., Ltd. Laboratory Registration No.จ-099  
**Physical Properties** : สี ไม่มีสี, มีตะกอน, มีกลิ่น

**Analysis No.** : WW3063/2565  
**Received Date** : June 15, 2022  
**Analytical Date** : June 15 – July 6, 2022  
**Report Date** : July 7, 2022

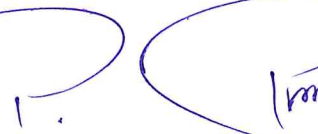
Parameter	Unit	Method of Analysis <sup>1/</sup>	Result	Standard <sup>2/</sup>
pH	-	Electrometric Method	8.8	5.5-9.0
Total Suspended Solids	mg/l	Dried at 103-105°C	6.9	50
Biochemical Oxygen Demand	mg/l	5-Day BOD Test, Membrane Electrode Method	<2.0	20
Oil and Grease	mg/l	Liquid-Liquid Partition, Gravimetric Method	<1.0	5

**Remark :** <sup>1/</sup> Standard Method for Examination of Water and Wastewater, 23<sup>rd</sup> Edition, 2017.

<sup>2/</sup> Notification of the Ministry of Industry, B.E.2560 (2017), issued under Factory Act B.E.2535 (1992), published in the Royal Government Gazette No.134 Part 153D dated June 7, B.E.2560 (2017).

  
(Ms.Raiwin Posit)  
Laboratory Reviewer No.จ-099-ก-7665



  
(Ms.Panicha Promchai)  
Laboratory Supervisor No.จ-099-ก-2414




## ANALYSIS REPORT

**Customer Name** : NFC PCL.  
**Address** : No.2, I-2 Road, Map Ta Phut Industrial Estate, Muang Rayong, Rayong 21150  
**Project Name** : โครงการทำเทียบเรือ (ครั้งที่ 1)  
**Sampling Point** : บริเวณบ่อกักน้ำสุดท้าย  
**GPS. Coordinate** : UTM (WGS84) 47P 0732870 E, 1402795 N  
**Type of Sample** : Wastewater Sampling **Analysis No.** : WW3063/2565  
**Sampling Method** : Grab **Received Date** : June 15, 2022  
**Sampling Date** : June 10, 2022 **Analytical Date** : June 15 – July 6, 2022  
**Sampling Time** : 08:42 **Report Date** : July 7, 2022  
**Sampling By** : Mr.Wanchana Seehamart  
**Analyzed By** : Environment Research & Technology Co., Ltd.  
**Physical Properties** : สี ไม่มีสี, มีตะกอน, มีกลิ่น

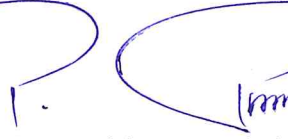
Parameter	Unit	Method of Analysis <sup>1/</sup>	Result	Standard <sup>2/</sup>
Ammonia-Nitrogen	mg/l	Distillation, Titrimetric Method	<0.4	-
Nitrogen	mg/l	Macro Kjeldahl, Brucine, Colorimetric Method	12	-
Phosphate	mg/l	Ascorbic Acid Method	0.1	-
Phosphorus	mg/l	Ascorbic Acid Method	0.64	-
Potassium	mg/l	Digestion, Inductively Coupled Plasma Method	7.6	-
Sulfate	mg/l	Turbidimetric Method	30	-
Turbidity	NTU	Nephelometric Method	3.7	-
Total Coliform Bacteria	MPN/100 ml	Most Probable Number Method	<1.8	-
Benzene	mg/l	Purge and Trap Capillary-Column Gas Chromatography-Mass Spectrometry	<0.001	-

Remark : <sup>1/</sup> Standard Method for Examination of Water and Wastewater, 23<sup>rd</sup> Edition, 2017.

<sup>2/</sup> Notification of the Ministry of Industry, B.E.2560 (2017), issued under Factory Act B.E.2535 (1992), published in the Royal Government Gazette No.134 Part 153D dated June 7, B.E.2560 (2017).



(Ms.Raiwin Posit)  
Laboratory Reviewer

(Ms.Panicha Promchai)  
Laboratory Supervisor




## ANALYSIS REPORT

**Customer Name** : NFC PCL.  
**Address** : No.2, I-2 Road, Map Ta Phut Industrial Estate, Muang Rayong, Rayong 21150  
**Project Name** : โครงการทำเทียบเรือ (ครั้งที่ 1)  
**Sampling Source** : Ambient Air Quality  
**Sampling Point** : บริเวณอาคารควบคุมหน้าท่าเทียบเรือ (Unloading Arm)  
**GPS. Coordinate** : UTM (WGS84) 47P 0732406 E, 1401987 N  
**Sampling Date** : June 9-12, 2022  
**Sampling Time** : 14:30  
**Sampling Method** : U.S. EPA 40 CFR Part 50  
**Sample Condition** : Good  
**Sampling By** : Mr.Akarawat Kochobog  
**Analyzed By** : Environment Research & Technology Co., Ltd.

**Analysis No.** : AB739/2565  
**Received Date** : June 15, 2022  
**Analytical Date** : June 15-27, 2022  
**Report Date** : July 1, 2022

Parameter	Unit	Method of Analysis	Result			Standard <sup>1/</sup>
			Jun 9-10, 22	Jun 10-11, 22	Jun 11-12, 22	
Total Suspended Particulate (TSP) 24 Hours Average	mg/m <sup>3</sup>	Hi-Volume, Gravimetric Method	0.038	0.045	0.052	0.330
Ammonia (NH <sub>3</sub> ) 24 Hours Average	mg/m <sup>3</sup>	Ion Chromatography Method	<0.02	0.03	<0.02	-

**Remark :** <sup>1/</sup> Notification of National Environmental Board, No.10, B.E.2538 (1995), published in the Royal Government Gazette No.112 Part 42D dated May 25, B.E.2538 (1995) and Notification No.24, B.E.2547 (2004), published in the Royal Government Gazette No.121 Special Part 104D dated September 22, B.E.2547 (2004), under the Enhancement and Conservation of National Environmental Quality Act B.E.2535 (1992).

  
(Ms.Natnicha Sermmatiwong)  
Laboratory Reviewer



  
(Ms.Panicha Promchai)  
Laboratory Supervisor

## ANALYSIS REPORT

**Customer Name** : NFC PCL.

**Address** : No.2, I-2 Road, Map Ta Phut Industrial Estate, Muang Rayong, Rayong 21150

**Project Name** : โครงการทำเทียบเรือ (ครั้งที่ 1)

**Sampling Source** : Ambient Air Quality

**Sampling Point** : บริเวณชุมชนมาบตาพุดเมืองใหม่ ตำบลมาบตาพุด อำเภอเมืองระยอง จังหวัดระยอง

**GPS. Coordinate** : UTM (WGS84) 47P 0734598 E, 1406363 N

**Sampling Date** : June 9-12, 2022

**Sampling Time** : 09:33

**Sampling Method** : U.S. EPA 40 CFR Part 50

**Sample Condition** : Good

**Sampling By** : Mr.Akarawat Kochobog

**Analyzed By** : Environment Research & Technology Co., Ltd.

**Analysis No.** : AB740/2565

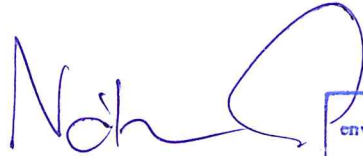
**Received Date** : June 15, 2022

**Analytical Date** : June 15-27, 2022

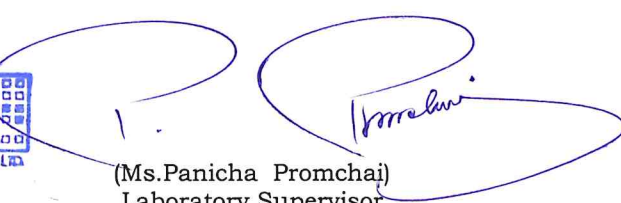
**Report Date** : July 1, 2022

Parameter	Unit	Method of Analysis	Result			Standard <sup>1/</sup>
			Jun 9-10, 22	Jun 10-11, 22	Jun 11-12, 22	
Total Suspended Particulate (TSP) 24 Hours Average	mg/m <sup>3</sup>	Hi-Volume, Gravimetric Method	0.028	0.030	0.030	0.330
Ammonia (NH <sub>3</sub> ) 24 Hours Average	mg/m <sup>3</sup>	Ion Chromatography Method	<0.02	<0.02	<0.02	-

**Remark :** <sup>1/</sup> Notification of National Environmental Board, No.10, B.E.2538 (1995), published in the Royal Government Gazette No.112 Part 42D dated May 25, B.E.2538 (1995) and Notification No.24, B.E.2547 (2004), published in the Royal Government Gazette No.121 Special Part 104D dated September 22, B.E.2547 (2004), under the Enhancement and Conservation of National Environmental Quality Act B.E.2535 (1992).

  
(Ms.Natnicha Sermmatiwong)  
Laboratory Reviewer



  
(Ms.Panicha Promchai)  
Laboratory Supervisor



## ANALYSIS REPORT

**Customer Name** : NFC PCL.  
**Address** : No.2, I-2 Road, Map Ta Phut Industrial Estate, Muang Rayong, Rayong 21150  
**Project Name** : โครงการทำเทียบเรือ (ครั้งที่ 1)  
**Sampling Point** : คุณภาพน้ำทะเลบริเวณด้านเหนือจุดระบายน้ำทิ้งระยะห่างประมาณ 50 เมตร  
**GPS. Coordinate** : UTM (WGS84) 47P 0732585 E, 1401930 N  
**Type of Sample** : Coastal Water Sampling  
**Sampling Method** : Grab  
**Sampling Date** : March 14, 2022  
**Sampling Time** : 14:15  
**Sampling By** : Mr.Chatchai Yowapuy  
**Analyzed By** : Environment Research & Technology Co., Ltd.  
**Physical Properties** : สี มีสีเหลืองอ่อน, มีตะกอน, ไม่มีกลิ่น

**Analysis No.** : WW1203/2565  
**Received Date** : March 17, 2022  
**Analytical Date** : March 17-25, 2022  
**Report Date** : March 28, 2022

Parameter	Unit	Method of Analysis <sup>1/</sup>	Result	Standard <sup>2/</sup>
Floatable Oil & Grease	-	Visual Comparison Method	Not Visible	Not Visible
pH	-	Electrometric Method	8.3	7.0-8.5
Suspended Solids	mg/l	Dried at 103-105°C	<5.0	-
Total Coliform Bacteria	MPN/100 ml	Most Probable Number Method	<1.8	1,000
Nitrate-Nitrogen	µg-N/l	Brucine Method	<10	60
Phosphate-Phosphorus	µg-P/l	Ascorbic Acid Method	<12	45
Total Ammonia	µg-N/l	Distillation, Titrimetric Method	<10	950
Benzene	mg/l	Purge and Trap Capillary-Column Gas Chromatography-Mass Spectrometry	<0.001	-
Biochemical Oxygen Demand	mg/l	5-Day BOD Test, Membrane Electrode Method	<2.0	-
Nitrogen	mg/l	Macro Kjeldahl, Brucine, Colorimetric Method	1.2	-
Phosphorus	µg/l	Ascorbic Acid Method	<13	-
Potassium	mg/l	Digestion, Inductively Coupled Plasma Method	339	-
Sulfate	mg/l	Turbidimetric Method	2,552	-
Turbidity	NTU	Nephelometric Method	2.5	-

**Remark :** <sup>1/</sup> Standard Method for Examination of Water and Wastewater, 23<sup>rd</sup> Edition, 2017.

<sup>2/</sup>Notification of the Ministry National Environmental Board issued under the Enhancement and Conservation of National Environmental Quality Act B.E.2535 (1992), published in the Royal Government Gazette No.134 Part 288D (Special Issue), dated November 23, B.E.2560 (2017). (Standard Value of Coastal Water for Class 5).



(Ms.Raiwin Posit)  
Laboratory Reviewer




(Ms.Panicha Promchai)  
Laboratory Supervisor



## ANALYSIS REPORT


**Customer Name** : NFC PCL.  
**Address** : No.2, I-2 Road, Map Ta Phut Industrial Estate, Muang Rayong, Rayong 21150  
**Project Name** : โครงการทำเทียมเรือ (ครั้งที่ 1)  
**Sampling Point** : คุณภาพน้ำทะเลบริเวณจุดระบายน้ำทิ้ง  
**GPS. Coordinate** : UTM (WGS84) 47P 0732428 E, 1401945 N  
**Type of Sample** : Coastal Water Sampling  
**Sampling Method** : Grab  
**Sampling Date** : March 14, 2022  
**Sampling Time** : 14:23  
**Sampling By** : Mr.Chatchai Yowapuy  
**Analyzed By** : Environment Research & Technology Co., Ltd.  
**Physical Properties** : สี มีสีเหลืองอ่อน, มีตะกอน, ไม่มีกลิ่น

**Analysis No.** : WW1205/2565  
**Received Date** : March 17, 2022  
**Analytical Date** : March 17-25, 2022  
**Report Date** : March 28, 2022


Parameter	Unit	Method of Analysis <sup>1/</sup>	Result	Standard <sup>2/</sup>
Floatable Oil & Grease	-	Visual Comparison Method	Not Visible	Not Visible
pH	-	Electrometric Method	8.3	7.0-8.5
Suspended Solids	mg/l	Dried at 103-105°C	<5.0	-
Total Coliform Bacteria	MPN/100 ml	Most Probable Number Method	4.5	1,000
Nitrate-Nitrogen	µg-N/l	Brucine Method	<10	60
Phosphate-Phosphorus	µg-P/l	Ascorbic Acid Method	<12	45
Total Ammonia	µg-N/l	Distillation, Titrimetric Method	<10	950
Benzene	mg/l	Purge and Trap Capillary-Column Gas Chromatography-Mass Spectrometry	<0.001	-
Biochemical Oxygen Demand	mg/l	5-Day BOD Test, Membrane Electrode Method	<2.0	-
Nitrogen	mg/l	Macro Kjeldahl, Brucine, Colorimetric Method	<1.0	-
Phosphorus	µg/l	Ascorbic Acid Method	<13	-
Potassium	mg/l	Digestion, Inductively Coupled Plasma Method	342	-
Sulfate	mg/l	Turbidimetric Method	2,661	-
Turbidity	NTU	Nephelometric Method	3.8	-

**Remark :** <sup>1/</sup> Standard Method for Examination of Water and Wastewater, 23<sup>rd</sup> Edition, 2017.

<sup>2/</sup>Notification of the Ministry National Environmental Board issued under the Enhancement and Conservation of National Environmental Quality Act B.E.2535 (1992), published in the Royal Government Gazette No.134 Part 288D (Special Issue), dated November 23, B.E.2560 (2017). (Standard Value of Coastal Water for Class 5).

  
(Ms. Raiwin Posit)  
Laboratory Reviewer



  
(Ms. Panicha Promchai)  
Laboratory Supervisor

## ANALYSIS REPORT


**Customer Name** : NFC PCL.  
**Address** : No.2, I-2 Road, Map Ta Phut Industrial Estate, Muang Rayong, Rayong 21150  
**Project Name** : โครงการทำเทียบเรือ (ครั้งที่ 1)  
**Sampling Point** : คุณภาพน้ำทะเลบริเวณด้านใต้จุดระบายน้ำทิ้งระยะห่างประมาณ 50 เมตร  
**GPS. Coordinate** : UTM (WGS84) 47P 0732396 E, 1401909 N  
**Type of Sample** : Coastal Water Sampling  
**Sampling Method** : Grab  
**Sampling Date** : March 14, 2022  
**Sampling Time** : 14:33  
**Sampling By** : Mr.Chatchai Yowapuy  
**Analyzed By** : Environment Research & Technology Co., Ltd.  
**Physical Properties** : สี มีสีเหลืองอ่อน, มีตะกอน, ไม่มีกลิ่น

**Analysis No.** : WW1206/2565  
**Received Date** : March 17, 2022  
**Analytical Date** : March 17-25, 2022  
**Report Date** : March 28, 2022


Parameter	Unit	Method of Analysis <sup>1/</sup>	Result	Standard <sup>2/</sup>
Floatable Oil & Grease	-	Visual Comparison Method	Not Visible	Not Visible
pH	-	Electrometric Method	8.3	7.0-8.5
Suspended Solids	mg/l	Dried at 103-105°C	<5.0	-
Total Coliform Bacteria	MPN/100 ml	Most Probable Number Method	<1.8	1,000
Nitrate-Nitrogen	µg-N/l	Brucine Method	<10	60
Phosphate-Phosphorus	µg-P/l	Ascorbic Acid Method	<12	45
Total Ammonia	µg-N/l	Distillation, Titrimetric Method	<10	950
Benzene	mg/l	Purge and Trap Capillary-Column Gas Chromatography-Mass Spectrometry	<0.001	-
Biochemical Oxygen Demand	mg/l	5-Day BOD Test, Membrane Electrode Method	<2.0	-
Nitrogen	mg/l	Macro Kjeldahl, Brucine, Colorimetric Method	<1.0	-
Phosphorus	µg/l	Ascorbic Acid Method	<13	-
Potassium	mg/l	Digestion, Inductively Coupled Plasma Method	339	-
Sulfate	mg/l	Turbidimetric Method	2,958	-
Turbidity	NTU	Nephelometric Method	3.0	-

**Remark :** <sup>1/</sup> Standard Method for Examination of Water and Wastewater, 23<sup>rd</sup> Edition, 2017.

<sup>2/</sup>Notification of the Ministry National Environmental Board issued under the Enhancement and Conservation of National Environmental Quality Act B.E.2535 (1992), published in the Royal Government Gazette No.134 Part 288D (Special Issue), dated November 23, B.E.2560 (2017). (Standard Value of Coastal Water for Class 5).

  
(Ms.Raiwin Posit)  
Laboratory Reviewer



  
(Ms.Panicha Promchai)  
Laboratory Supervisor




## ANALYSIS REPORT

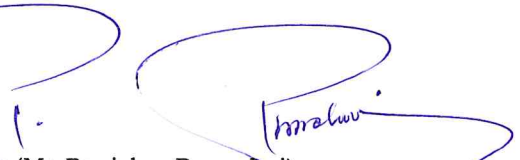
**Customer Name** : NFC PCL.  
**Address** : No.2, I-2 Road, Map Ta Phut Industrial Estate, Muang Rayong, Rayong 21150  
**Project Name** : โครงการทำเทียบเรือ (ครั้งที่ 1)  
**Sampling Point** : คุณภาพน้ำทะเลบริเวณด้านเหนือจุดระบายน้ำทิ้งระยะห่างประมาณ 50 เมตร  
**GPS. Coordinate** : UTM (WGS84) 47P 0732396 E, 1401909 N  
**Type of Sample** : Coastal Water Sampling **Analysis No.** : WW3065/2565  
**Sampling Method** : Grab **Received Date** : June 15, 2022  
**Sampling Date** : June 10, 2022 **Analytical Date** : June 15 – July 6, 2022  
**Sampling Time** : 09:04 **Report Date** : July 7, 2022  
**Sampling By** : Mr.Wanchana Seehamart  
**Analyzed By** : Environment Research & Technology Co., Ltd.  
**Physical Properties** : สี ไม่มีสี, มีตะกอน, ไม่มีกลิ่น

Parameter	Unit	Method of Analysis <sup>1/</sup>	Result	Standard <sup>2/</sup>
Floatable Oil & Grease	-	Visual Comparison Method	Not Visible	Not Visible
pH	-	Electrometric Method	8.0	7.0-8.5
Suspended Solids	mg/l	Dried at 103-105°C	6.7	-
Total Coliform Bacteria	MPN/100 ml	Most Probable Number Method	7.8	1,000
Nitrate-Nitrogen	µg-N/l	Brucine Method	<10	60
Phosphate-Phosphorus	µg-P/l	Ascorbic Acid Method	<12	45
Total Ammonia	µg-N/l	Distillation, Titrimetric Method	<10	950
Benzene	mg/l	Purge and Trap Capillary-Column Gas Chromatography-Mass Spectrometry	<0.001	-
Biochemical Oxygen Demand	mg/l	5-Day BOD Test, Membrane Electrode Method	<2.0	-
Nitrogen	mg/l	Macro Kjeldahl, Brucine, Colorimetric Method	1.3	-
Phosphorus	µg/l	Ascorbic Acid Method	<13	-
Potassium	mg/l	Digestion, Inductively Coupled Plasma Method	350	-
Sulfate	mg/l	Turbidimetric Method	2,471	-
Turbidity	NTU	Nephelometric Method	3.2	-

**Remark :** <sup>1/</sup> Standard Method for Examination of Water and Wastewater, 23<sup>rd</sup> Edition, 2017.

<sup>2/</sup>Notification of the Ministry National Environmental Board issued under the Enhancement and Conservation of National Environmental Quality Act B.E.2535 (1992), published in the Royal Government Gazette No.134 Part 288D (Special Issue), dated November 23, B.E.2560 (2017). (Standard Value of Coastal Water for Class 5).

  
(Ms. Raiwin Posit)  
Laboratory Reviewer

  
(Ms. Panicha Promchai)  
Laboratory Supervisor




## ANALYSIS REPORT

**Customer Name** : NFC PCL.  
**Address** : No.2, I-2 Road, Map Ta Phut Industrial Estate, Muang Rayong, Rayong 21150  
**Project Name** : โครงการทำเหียบเรือ (ครั้งที่ 1)  
**Sampling Point** : คุณภาพน้ำทะเลบริเวณจุดระบายน้ำทิ้ง  
**GPS. Coordinate** : UTM (WGS84) 47P 0732536 E, 1401913 N  
**Type of Sample** : Coastal Water Sampling **Analysis No.** : WW3064/2565  
**Sampling Method** : Grab **Received Date** : June 15, 2022  
**Sampling Date** : June 10, 2022 **Analytical Date** : June 15 – July 6, 2022  
**Sampling Time** : 09:18 **Report Date** : July 7, 2022  
**Sampling By** : Mr.Wanchana Seehamart  
**Analyzed By** : Environment Research & Technology Co., Ltd.  
**Physical Properties** : ชุ่น ไม่มีสี, มีตะกอน, ไม่มีกลิ่น

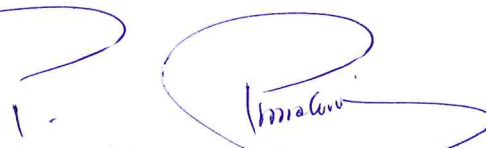
Parameter	Unit	Method of Analysis <sup>1/</sup>	Result	Standard <sup>2/</sup>
Floatable Oil & Grease	-	Visual Comparison Method	Not Visible	Not Visible
pH	-	Electrometric Method	8.1	7.0-8.5
Suspended Solids	mg/l	Dried at 103-105°C	5.8	-
Total Coliform Bacteria	MPN/100 ml	Most Probable Number Method	4.5	1,000
Nitrate-Nitrogen	µg-N/l	Brucine Method	<10	60
Phosphate-Phosphorus	µg-P/l	Ascorbic Acid Method	<12	45
Total Ammonia	µg-N/l	Distillation, Titrimetric Method	<10	950
Benzene	mg/l	Purge and Trap Capillary-Column Gas Chromatography-Mass Spectrometry	<0.001	-
Biochemical Oxygen Demand	mg/l	5-Day BOD Test, Membrane Electrode Method	<2.0	-
Nitrogen	mg/l	Macro Kjeldahl, Brucine, Colorimetric Method	1.2	-
Phosphorus	µg/l	Ascorbic Acid Method	<13	-
Potassium	mg/l	Digestion, Inductively Coupled Plasma Method	351	-
Sulfate	mg/l	Turbidimetric Method	2,052	-
Turbidity	NTU	Nephelometric Method	3.7	-

**Remark :** <sup>1/</sup> Standard Method for Examination of Water and Wastewater, 23<sup>rd</sup> Edition, 2017.

<sup>2/</sup>Notification of the Ministry National Environmental Board issued under the Enhancement and Conservation of National Environmental Quality Act B.E.2535 (1992), published in the Royal Government Gazette No.134 Part 288D (Special Issue), dated November 23, B.E.2560 (2017). (Standard Value of Coastal Water for Class 5).

  
(Ms.Raiwin Posit)  
Laboratory Reviewer



  
(Ms.Panicha Promchai)  
Laboratory Supervisor

## ANALYSIS REPORT


**Customer Name** : NFC PCL.  
**Address** : No.2, I-2 Road, Map Ta Phut Industrial Estate, Muang Rayong, Rayong 21150  
**Project Name** : โครงการทำเทียบเรือ (ครั้งที่ 1)  
**Sampling Point** : คุณภาพน้ำทะเลบริเวณด้านใต้จุดระบายน้ำทิ้งระยะห่างประมาณ 50 เมตร  
**GPS. Coordinate** : UTM (WGS84) 47P 0732358 E, 1401867 N  
**Type of Sample** : Coastal Water Sampling  
**Sampling Method** : Grab  
**Sampling Date** : June 10, 2022  
**Sampling Time** : 09:14  
**Sampling By** : Mr.Wanchana Seehamart  
**Analyzed By** : Environment Research & Technology Co., Ltd.  
**Physical Properties** : สี ไม่มีสี, มีตะกอน, ไม่มีกลิ่น

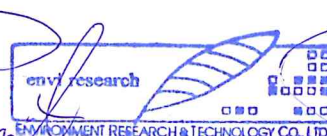
**Analysis No.** : WW3062/2565  
**Received Date** : June 15, 2022  
**Analytical Date** : June 15 – July 6, 2022  
**Report Date** : July 7, 2022

Parameter	Unit	Method of Analysis <sup>1/</sup>	Result	Standard <sup>2/</sup>
Floatable Oil & Grease	-	Visual Comparison Method	Not Visible	Not Visible
pH	-	Electrometric Method	8.1	7.0-8.5
Suspended Solids	mg/l	Dried at 103-105°C	6.4	-
Total Coliform Bacteria	MPN/100 ml	Most Probable Number Method	7.8	1,000
Nitrate-Nitrogen	µg-N/l	Brucine Method	<10	60
Phosphate-Phosphorus	µg-P/l	Ascorbic Acid Method	<12	45
Total Ammonia	µg-N/l	Distillation, Titrimetric Method	<10	950
Benzene	mg/l	Purge and Trap Capillary-Column Gas Chromatography-Mass Spectrometry	<0.001	-
Biochemical Oxygen Demand	mg/l	5-Day BOD Test, Membrane Electrode Method	<2.0	-
Nitrogen	mg/l	Macro Kjeldahl, Brucine, Colorimetric Method	1.2	-
Phosphorus	µg/l	Ascorbic Acid Method	<13	-
Potassium	mg/l	Digestion, Inductively Coupled Plasma Method	347	-
Sulfate	mg/l	Turbidimetric Method	2,025	-
Turbidity	NTU	Nephelometric Method	5.4	-

**Remark :** <sup>1/</sup> Standard Method for Examination of Water and Wastewater, 23<sup>rd</sup> Edition, 2017.

<sup>2/</sup>Notification of the Ministry National Environmental Board issued under the Enhancement and Conservation of National Environmental Quality Act B.E.2535 (1992), published in the Royal Government Gazette No.134 Part 288D (Special Issue), dated November 23, B.E.2560 (2017). (Standard Value of Coastal Water for Class 5).

  
(Ms.Raiwin Posit)  
Laboratory Reviewer



  
(Ms.Panicha Promchai)  
Laboratory Supervisor




## ANALYSIS REPORT

**Customer Name** : NFC PCL.  
**Address** : No.2, I-2 Road, Map Ta Phut Industrial Estate, Muang Rayong, Rayong 21150  
**Project Name** : โครงการทำเทียบเรือ (ครั้งที่ 1)  
**Sampling Source** : Ambient Air Quality  
**Sampling Point** : บริเวณสถานคุ้มครองสวัสดิภาพเด็กกระยอง (สถานเยาวชนห้วยโป่ง)  
เลขที่ 318 ถนนสุขุมวิท ตำบลมาบตาพุด อำเภอเมืองระยอง จังหวัดระยอง  
**GPS. Coordinate** : UTM (WGS84) 47P 0732302 E, 1407983 N  
**Sampling Date** : June 9-12, 2022 **Analysis No.** : AB741/2565  
**Sampling Time** : 10:05 **Received Date** : June 15, 2022  
**Sampling Method** : U.S. EPA 40 CFR Part 50 **Analytical Date** : June 15-27, 2022  
**Sample Condition** : Good **Report Date** : July 1, 2022  
**Sampling By** : Mr.Akarawat Kochobog  
**Analyzed By** : Environment Research & Technology Co., Ltd.

Parameter	Unit	Method of Analysis	Result			Standard <sup>1/</sup>
			Jun 9-10, 22	Jun 10-11, 22	Jun 11-12, 22	
Total Suspended Particulate (TSP) 24 Hours Average	mg/m <sup>3</sup>	Hi-Volume, Gravimetric Method	0.032	0.028	0.036	0.330
Ammonia (NH <sub>3</sub> ) 24 Hours Average	mg/m <sup>3</sup>	Ion Chromatography Method	<0.02	<0.02	<0.02	-

**Remark :** <sup>1/</sup> Notification of National Environmental Board, No.10, B.E.2538 (1995), published in the Royal Government Gazette No.112 Part 42D dated May 25, B.E.2538 (1995) and Notification No.24, B.E.2547 (2004), published in the Royal Government Gazette No.121 Special Part 104D dated September 22, B.E.2547 (2004), under the Enhancement and Conservation of National Environmental Quality Act B.E.2535 (1992).

  
(Ms.Natnicha Sermmatiwong)  
Laboratory Reviewer



  
(Ms.Panicha Promchai)  
Laboratory Supervisor



## ANALYSIS REPORT

**Customer Name** : NFC PCL.  
**Address** : No.2, I-2 Road, Map Ta Phut Industrial Estate, Muang Rayong, Rayong 21150  
**Project Name** : โครงการท่าเทียบเรือ (ครั้งที่ 1)  
**Sampling Source** : Ambient Air Quality  
**Sampling Point** : บริเวณอาคารควบคุมหน้าท่าเทียบเรือ (Unloading Arm)  
**GPS. Coordinate** : UTM (WGS84) 47P 0732406 E, 1401987 N  
**Sampling Date** : June 9-12, 2022  
**Sampling Time** : 13:54  
**Sampling Method** : U.S. EPA Method TO-15  
**Sample Condition** : Canister  
**Sampling By** : Mr.Akarawat Kochobog  
**Analysis No.** : AB739/2565  
**Received Date** : June 15, 2022  
**Analytical Date** : June 15-28, 2022  
**Report Date** : July 1, 2022

Parameter	Unit	Method of Analysis	Result			Standard	
			Jun 9-10, 22	Jun 10-11, 22	Jun 11-12, 22	NEB <sup>1/</sup>	PCD <sup>2/</sup>
<b>Volatile Organic Compounds<sup>4/</sup></b>							
Propene	µg/m <sup>3</sup>	GC/MS	<0.09	<0.09	<0.09	-	-
Dichlorodifluoromethane	µg/m <sup>3</sup>	GC/MS	1.5	2.4	2.2	-	-
Chlorodifluoromethane	µg/m <sup>3</sup>	GC/MS	0.74	0.63	0.53	-	-
1,2-Dichlorotetrafluoroethane	µg/m <sup>3</sup>	GC/MS	<0.25	<0.25	<0.25	-	-
Chloromethane	µg/m <sup>3</sup>	GC/MS	1.5	1.7	1.5	-	-
Isobutene	µg/m <sup>3</sup>	GC/MS	0.27	0.48	0.21	-	-
Vinyl Chloride	µg/m <sup>3</sup>	GC/MS	<0.07	<0.07	<0.07	10	20
1,3-Butadiene	µg/m <sup>3</sup>	GC/MS	<0.07	<0.07	<0.07	0.33	5.3
Acetaldehyde	µg/m <sup>3</sup>	GC/MS	7.6	5.8	2.6	-	860
Bromomethane	µg/m <sup>3</sup>	GC/MS	<0.08	<0.08	<0.08	-	190
Chloroethane	µg/m <sup>3</sup>	GC/MS	<0.03	<0.03	<0.03	-	-
Trichlorofluoromethane	µg/m <sup>3</sup>	GC/MS	0.67	1.0	1.0	-	-
Pentane	µg/m <sup>3</sup>	GC/MS	7.4	8.5	20	-	-
Ethanol	µg/m <sup>3</sup>	GC/MS	2.5	2.5	0.68	-	-
Isoprene	µg/m <sup>3</sup>	GC/MS	<0.06	<0.06	<0.06	-	-
Acrolein	µg/m <sup>3</sup>	GC/MS	<0.18	<0.18	<0.18	-	0.55
Propanal	µg/m <sup>3</sup>	GC/MS	<0.08	<0.08	<0.08	-	-
1,1-Dichloroethylene	µg/m <sup>3</sup>	GC/MS	<0.05	<0.05	<0.05	-	-
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m <sup>3</sup>	GC/MS	<0.13	<0.13	<0.13	-	-
Acetone	µg/m <sup>3</sup>	GC/MS	14	5.8	4.3	-	-
Methyl Iodide	µg/m <sup>3</sup>	GC/MS	<0.15	<0.15	<0.15	-	-
Carbondisulfide	µg/m <sup>3</sup>	GC/MS	13	3.5	2.1	100 <sup>3/</sup>	-
2-Propanol	µg/m <sup>3</sup>	GC/MS	<0.32	<0.32	<0.32	-	-
Acetonitrile	µg/m <sup>3</sup>	GC/MS	<0.07	<0.07	<0.07	-	-
Dichloromethane	µg/m <sup>3</sup>	GC/MS	0.82	1.0	<0.47	22	210
Cyclopentane	µg/m <sup>3</sup>	GC/MS	<0.09	<0.09	<0.09	-	-

**Remark :** <sup>1/</sup> Notification of National Environmental Board, No.30, B.E.2550 (2007), published in the Royal Government Gazette No.124 Special Part 143D dated September 28, B.E.2550 (2007).

<sup>2/</sup> Notification of Pollution Control Department, B.E.2551 (2008), published in the Royal Government Gazette No.126 Special Part 13D dated January 27, B.E.2552 (2009).

<sup>3/</sup> Notification of National Environmental Board, B.E.2560 (2017), published in the Royal Government Gazette No.134 Special Part 230D dated September 20, B.E.2560 (2017).

<sup>4/</sup> Analyzed Sample by S.P.S. Consulting Co., Ltd.



(Ms. Panicha Promchai)  
Laboratory Supervisor



## ANALYSIS REPORT

**Customer Name** : NFC PCL.  
**Address** : No.2, I-2 Road, Map Ta Phut Industrial Estate, Muang Rayong, Rayong 21150  
**Project Name** : โครงการท่าเทียบเรือ (ครั้งที่ 1)  
**Sampling Source** : Ambient Air Quality  
**Sampling Point** : บริเวณอาคารควบคุมหน้าท่าเทียบเรือ (Unloading Arm)  
**GPS. Coordinate** : UTM (WGS84) 47P 0732406 E, 1401987 N  
**Sampling Date** : June 9-12, 2022  
**Sampling Time** : 13:54  
**Sampling Method** : U.S. EPA Method TO-15  
**Sample Condition** : Canister  
**Sampling By** : Mr.Akarawat Kochobog

**Analysis No.** : AB739/2565  
**Received Date** : June 15, 2022  
**Analytical Date** : June 15-28, 2022  
**Report Date** : July 1, 2022

Parameter	Unit	Method of Analysis	Result			Standard	
			Jun 9-10, 22	Jun 10-11, 22	Jun 11-12, 22	NEB <sup>1/</sup>	PCD <sup>2/</sup>
<b>Volatile Organic Compounds<sup>4/</sup></b>							
MTBE	µg/m <sup>3</sup>	GC/MS	<0.06	<0.06	<0.06	-	-
Hexane	µg/m <sup>3</sup>	GC/MS	15	3.9	6.5	-	-
Methacrolein	µg/m <sup>3</sup>	GC/MS	<0.24	<0.24	<0.24	-	-
1,1-Dichloroethane	µg/m <sup>3</sup>	GC/MS	<0.05	<0.05	<0.05	-	-
Vinyl Acetate	µg/m <sup>3</sup>	GC/MS	<0.38	<0.38	<0.38	-	-
1-Propanol	µg/m <sup>3</sup>	GC/MS	<0.06	<0.06	<0.06	-	-
Butanal	µg/m <sup>3</sup>	GC/MS	<0.11	<0.11	<0.11	-	-
Methyl Vinyl ketone	µg/m <sup>3</sup>	GC/MS	<0.30	<0.30	<0.30	-	-
cis-1,2-Dichloroethene	µg/m <sup>3</sup>	GC/MS	<0.08	<0.08	<0.08	-	-
Methyl ethyl ketone	µg/m <sup>3</sup>	GC/MS	<0.27	0.65	0.27	-	-
Chloroform	µg/m <sup>3</sup>	GC/MS	<0.05	<0.05	<0.05	0.43	57
1,1,1-Trichloroethane	µg/m <sup>3</sup>	GC/MS	<0.11	<0.11	<0.11	-	-
Cyclohexane	µg/m <sup>3</sup>	GC/MS	<0.04	<0.04	<0.04	-	-
Carbon Tetrachloride	µg/m <sup>3</sup>	GC/MS	<0.18	<0.18	<0.18	-	150
Benzene	µg/m <sup>3</sup>	GC/MS	0.48	1.1	1.5	1.7	7.6
1,2-Dichloroethane	µg/m <sup>3</sup>	GC/MS	<0.09	<0.09	<0.09	0.4	48
Trichloroethylene	µg/m <sup>3</sup>	GC/MS	<0.23	<0.23	<0.23	23	130
1-Butanol	µg/m <sup>3</sup>	GC/MS	<0.32	<0.32	<0.32	-	-
1,2-Dichloropropane	µg/m <sup>3</sup>	GC/MS	<0.19	<0.19	<0.19	4	82
2-Pentanone	µg/m <sup>3</sup>	GC/MS	<0.20	<0.20	<0.20	-	-
Pentanal	µg/m <sup>3</sup>	GC/MS	<0.06	<0.06	<0.06	-	-
3-Pentanone	µg/m <sup>3</sup>	GC/MS	<0.25	<0.25	<0.25	-	-
1,4-Dioxane	µg/m <sup>3</sup>	GC/MS	<0.20	<0.20	<0.20	-	860
Bromodichloromethane	µg/m <sup>3</sup>	GC/MS	<0.25	<0.25	<0.25	-	-
trans-1,3-Dichloropropene	µg/m <sup>3</sup>	GC/MS	<0.15	<0.15	<0.15	-	-
4-Methyl-2-Pentanone	µg/m <sup>3</sup>	GC/MS	<0.12	<0.12	<0.12	-	-
Toluene	µg/m <sup>3</sup>	GC/MS	0.90	1.9	2.3	-	-

**Remark :** <sup>1/</sup> Notification of National Environmental Board, No.30, B.E.2550 (2007), published in the Royal Government Gazette No.124 Special Part 143D dated September 28, B.E.2550 (2007).

<sup>2/</sup> Notification of Pollution Control Department, B.E.2551 (2008), published in the Royal Government Gazette No.126 Special Part 13D dated January 27, B.E.2552 (2009).

<sup>3/</sup> Notification of National Environmental Board, B.E.2560 (2017), published in the Royal Government Gazette No.134 Special Part 230D dated September 20, B.E.2560 (2017).

<sup>4/</sup> Analyzed Sample by S.P.S. Consulting Co., Ltd.



(Ms.Panicha Promchai)  
Laboratory Supervisor



## ANALYSIS REPORT

**Customer Name** : NFC PCL.  
**Address** : No.2, I-2 Road, Map Ta Phut Industrial Estate, Muang Rayong, Rayong 21150  
**Project Name** : โครงการท่าเทียบเรือ (ครั้งที่ 1)  
**Sampling Source** : Ambient Air Quality  
**Sampling Point** : บริเวณอาคารควบคุมหน้าท่าเทียบเรือ (Unloading Arm)  
**GPS. Coordinate** : UTM (WGS84) 47P 0732406 E, 1401987 N  
**Sampling Date** : June 9-12, 2022  
**Sampling Time** : 13:54  
**Sampling Method** : U.S. EPA Method TO-15  
**Sample Condition** : Canister  
**Sampling By** : Mr.Akarawat Kochobog  
**Analysis No.** : AB739/2565  
**Received Date** : June 15, 2022  
**Analytical Date** : June 15-28, 2022  
**Report Date** : July 1, 2022

Parameter	Unit	Method of Analysis	Result			Standard	
			Jun 9-10, 22	Jun 10-11, 22	Jun 11-12, 22	NEB <sup>1/</sup>	PCD <sup>2/</sup>
<b>Volatile Organic Compounds<sup>4/</sup></b>							
cis-1,3-Dichloropropene	µg/m <sup>3</sup>	GC/MS	<0.25	<0.25	<0.25	-	-
1,1,2-Trichloroethane	µg/m <sup>3</sup>	GC/MS	<0.24	<0.24	<0.24	-	-
Tetrachloroethylene	µg/m <sup>3</sup>	GC/MS	<0.39	<0.39	<0.39	200	400
3-Hexanone	µg/m <sup>3</sup>	GC/MS	<0.33	<0.33	<0.33	-	-
2-Hexanone	µg/m <sup>3</sup>	GC/MS	<0.20	<0.20	<0.20	-	-
Hexanal	µg/m <sup>3</sup>	GC/MS	<0.30	<0.30	<0.30	-	-
1,2-Dibromoethane	µg/m <sup>3</sup>	GC/MS	<0.51	<0.51	<0.51	-	370
Chlorobenzene	µg/m <sup>3</sup>	GC/MS	<0.23	<0.23	<0.23	-	-
Ethylbenzene	µg/m <sup>3</sup>	GC/MS	0.13	0.52	0.91	-	-
m,p-Xylene	µg/m <sup>3</sup>	GC/MS	5.1	3.3	9.5	-	-
o-Xylene	µg/m <sup>3</sup>	GC/MS	<0.16	<0.16	<0.16	-	-
Styrene	µg/m <sup>3</sup>	GC/MS	<0.07	<0.07	<0.07	-	-
Bromoform	µg/m <sup>3</sup>	GC/MS	<0.87	<0.87	<0.87	-	-
1,1,2,2-Tetrachloroethane	µg/m <sup>3</sup>	GC/MS	<0.64	<0.64	<0.64	-	83
1,3,5-Trimethylbenzene	µg/m <sup>3</sup>	GC/MS	<0.49	<0.49	<0.49	-	-
1,2,4-Trimethylbenzene	µg/m <sup>3</sup>	GC/MS	<0.42	<0.42	<0.42	-	-
1,3-Dichlorobenzene	µg/m <sup>3</sup>	GC/MS	<0.39	<0.39	<0.39	-	-
1,4-Dichlorobenzene	µg/m <sup>3</sup>	GC/MS	<0.47	<0.47	<0.47	-	1,100
1,2,3-Trimethylbenzene	µg/m <sup>3</sup>	GC/MS	<0.27	<0.27	<0.27	-	-
Benzyl Chloride	µg/m <sup>3</sup>	GC/MS	<0.25	<0.25	<0.25	-	12
1,2-Dichlorobenzene	µg/m <sup>3</sup>	GC/MS	<0.35	<0.35	<0.35	-	-
1,2,4-Trichlorobenzene	µg/m <sup>3</sup>	GC/MS	<0.13	<0.13	<0.13	-	-
Acrylonitrile	µg/m <sup>3</sup>	GC/MS	<0.15	<0.15	<0.15	-	10
Methanol	µg/m <sup>3</sup>	GC/MS	4.6	1.8	1.6	-	-
Total Xylene	µg/m <sup>3</sup>	GC/MS	5.1	3.3	9.5	-	-

**Remark :** <sup>1/</sup> Notification of National Environmental Board, No.30, B.E.2550 (2007), published in the Royal Government Gazette No.124 Special Part 143D dated September 28, B.E.2550 (2007).

<sup>2/</sup> Notification of Pollution Control Department, B.E.2551 (2008), published in the Royal Government Gazette No.126 Special Part 13D dated January 27, B.E.2552 (2009).

<sup>3/</sup> Notification of National Environmental Board, B.E.2560 (2017), published in the Royal Government Gazette No.134 Special Part 230D dated September 20, B.E.2560 (2017).

<sup>4/</sup> Analyzed Sample by S.P.S. Consulting Co., Ltd.



(Ms.Panicha Promchai)  
Laboratory Supervisor



## ANALYSIS REPORT

**Customer Name** : NFC PCL.  
**Address** : No.2, I-2 Road, Map Ta Phut Industrial Estate, Muang Rayong, Rayong 21150  
**Project Name** : โครงการทำเทียบเรือ (ครั้งที่ 1)  
**Sampling Source** : Ambient Air Quality  
**Sampling Point** : บริเวณชุมชนมาบตาพุดเมืองใหม่ ตำบลมาบตาพุด อำเภอเมืองระยอง จังหวัดระยอง  
**GPS. Coordinate** : UTM (WGS84) 47P 0734598 E, 1406363 N  
**Sampling Date** : June 9-12, 2022  
**Sampling Time** : 09:12  
**Sampling Method** : U.S. EPA Method TO-15  
**Sample Condition** : Canister  
**Sampling By** : Mr.Akarawat Kochobog

**Analysis No.** : AB740/2565  
**Received Date** : June 15, 2022  
**Analytical Date** : June 15-28, 2022  
**Report Date** : July 1, 2022

Parameter	Unit	Method of Analysis	Result			Standard	
			Jun 9-10, 22	Jun 10-11, 22	Jun 11-12, 22	NEB <sup>1/</sup>	PCD <sup>2/</sup>
<b>Volatile Organic Compounds<sup>4/</sup></b>							
Propene	µg/m <sup>3</sup>	GC/MS	<0.09	0.83	<0.09	-	-
Dichlorodifluoromethane	µg/m <sup>3</sup>	GC/MS	1.6	1.5	1.3	-	-
Chlorodifluoromethane	µg/m <sup>3</sup>	GC/MS	0.63	0.63	1.1	-	-
1,2-Dichlorotetrafluoroethane	µg/m <sup>3</sup>	GC/MS	<0.25	<0.25	<0.25	-	-
Chloromethane	µg/m <sup>3</sup>	GC/MS	1.8	1.2	1.8	-	-
Isobutene	µg/m <sup>3</sup>	GC/MS	0.69	0.62	0.76	-	-
Vinyl Chloride	µg/m <sup>3</sup>	GC/MS	<0.07	<0.07	<0.07	10	20
1,3-Butadiene	µg/m <sup>3</sup>	GC/MS	0.33	0.99	0.99	0.33	5.3
Acetaldehyde	µg/m <sup>3</sup>	GC/MS	3.6	3.9	4.6	-	860
Bromomethane	µg/m <sup>3</sup>	GC/MS	<0.08	<0.08	<0.08	-	190
Chloroethane	µg/m <sup>3</sup>	GC/MS	<0.03	<0.03	<0.03	-	-
Trichlorofluoromethane	µg/m <sup>3</sup>	GC/MS	0.67	0.67	0.67	-	-
Pentane	µg/m <sup>3</sup>	GC/MS	8.5	6.0	8.4	-	-
Ethanol	µg/m <sup>3</sup>	GC/MS	3.6	5.2	4.4	-	-
Isoprene	µg/m <sup>3</sup>	GC/MS	<0.06	<0.06	<0.06	-	-
Acrolein	µg/m <sup>3</sup>	GC/MS	<0.18	<0.18	<0.18	-	0.55
Propanal	µg/m <sup>3</sup>	GC/MS	<0.08	<0.08	<0.08	-	-
1,1-Dichloroethylene	µg/m <sup>3</sup>	GC/MS	<0.05	<0.05	<0.05	-	-
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m <sup>3</sup>	GC/MS	<0.13	<0.13	<0.13	-	-
Acetone	µg/m <sup>3</sup>	GC/MS	9.6	5.3	14	-	-
Methyl Iodide	µg/m <sup>3</sup>	GC/MS	<0.15	<0.15	<0.15	-	-
Carbondisulfide	µg/m <sup>3</sup>	GC/MS	1.8	2.4	2.5	100 <sup>3/</sup>	-
2-Propanol	µg/m <sup>3</sup>	GC/MS	<0.32	<0.32	<0.32	-	-
Acetonitrile	µg/m <sup>3</sup>	GC/MS	<0.07	<0.07	<0.07	-	-
Dichloromethane	µg/m <sup>3</sup>	GC/MS	<0.47	<0.47	<0.47	22	210
Cyclopentane	µg/m <sup>3</sup>	GC/MS	<0.09	<0.09	<0.09	-	-

**Remark :** <sup>1/</sup> Notification of National Environmental Board, No.30, B.E.2550 (2007), published in the Royal Government Gazette No.124 Special Part 143D dated September 28, B.E.2550 (2007).  
<sup>2/</sup> Notification of Pollution Control Department, B.E.2551 (2008), published in the Royal Government Gazette No.126 Special Part 13D dated January 27, B.E.2552 (2009).  
<sup>3/</sup> Notification of National Environmental Board, B.E.2560 (2017), published in the Royal Government Gazette No.134 Special Part 230D dated September 20, B.E.2560 (2017).  
<sup>4/</sup> Analyzed Sample by S.P.S. Consulting Co., Ltd.



(Ms. Panicha Promchai)  
Laboratory Supervisor



## ANALYSIS REPORT

**Customer Name** : NFC PCL.  
**Address** : No.2, I-2 Road, Map Ta Phut Industrial Estate, Muang Rayong, Rayong 21150  
**Project Name** : โครงการทำเทียบเรือ (ครั้งที่ 1)  
**Sampling Source** : Ambient Air Quality  
**Sampling Point** : บริเวณชุมชนมาบตาพุดเมืองใหม่ ตำบลมาบตาพุด อำเภอเมืองระยอง จังหวัดระยอง  
**GPS. Coordinate** : UTM (WGS84) 47P 0734598 E, 1406363 N  
**Sampling Date** : June 9-12, 2022  
**Sampling Time** : 09:12  
**Sampling Method** : U.S. EPA Method TO-15  
**Sample Condition** : Canister  
**Sampling By** : Mr.Akarawat Kochobog

**Analysis No.** : AB740/2565  
**Received Date** : June 15, 2022  
**Analytical Date** : June 15-28, 2022  
**Report Date** : July 1, 2022

Parameter	Unit	Method of Analysis	Result			Standard	
			Jun 9-10, 22	Jun 10-11, 22	Jun 11-12, 22	NEB <sup>1/</sup>	PCD <sup>2/</sup>
Volatile Organic Compounds <sup>4/</sup>							
MTBE	µg/m <sup>3</sup>	GC/MS	<0.06	<0.06	<0.06	-	-
Hexane	µg/m <sup>3</sup>	GC/MS	4.8	3.8	4.8	-	-
Methacrolein	µg/m <sup>3</sup>	GC/MS	<0.24	<0.24	<0.24	-	-
1,1-Dichloroethane	µg/m <sup>3</sup>	GC/MS	<0.05	<0.05	<0.05	-	-
Vinyl Acetate	µg/m <sup>3</sup>	GC/MS	<0.38	<0.38	<0.38	-	-
1-Propanol	µg/m <sup>3</sup>	GC/MS	<0.06	<0.06	<0.06	-	-
Butanal	µg/m <sup>3</sup>	GC/MS	<0.11	<0.11	<0.11	-	-
Methyl Vinyl ketone	µg/m <sup>3</sup>	GC/MS	<0.30	<0.30	<0.30	-	-
cis-1,2-Dichloroethene	µg/m <sup>3</sup>	GC/MS	<0.08	<0.08	<0.08	-	-
Methyl ethyl ketone	µg/m <sup>3</sup>	GC/MS	<0.27	<0.27	<0.27	-	-
Chloroform	µg/m <sup>3</sup>	GC/MS	<0.05	<0.05	<0.05	0.43	57
1,1,1-Trichloroethane	µg/m <sup>3</sup>	GC/MS	<0.11	<0.11	<0.11	-	-
Cyclohexane	µg/m <sup>3</sup>	GC/MS	1.7	1.3	2.3	-	-
Carbon Tetrachloride	µg/m <sup>3</sup>	GC/MS	<0.18	<0.18	<0.18	-	150
Benzene	µg/m <sup>3</sup>	GC/MS	2.6	2.4	4.1	1.7	7.6
1,2-Dichloroethane	µg/m <sup>3</sup>	GC/MS	<0.09	<0.09	<0.09	0.4	48
Trichloroethylene	µg/m <sup>3</sup>	GC/MS	<0.23	<0.23	<0.23	23	130
1-Butanol	µg/m <sup>3</sup>	GC/MS	<0.32	<0.32	<0.32	-	-
1,2-Dichloropropane	µg/m <sup>3</sup>	GC/MS	<0.19	<0.19	<0.19	4	82
2-Pentanone	µg/m <sup>3</sup>	GC/MS	<0.20	<0.20	<0.20	-	-
Pentanal	µg/m <sup>3</sup>	GC/MS	<0.06	<0.06	<0.06	-	-
3-Pentanone	µg/m <sup>3</sup>	GC/MS	<0.25	<0.25	<0.25	-	-
1,4-Dioxane	µg/m <sup>3</sup>	GC/MS	<0.20	<0.20	<0.20	-	860
Bromodichloromethane	µg/m <sup>3</sup>	GC/MS	<0.25	<0.25	<0.25	-	-
trans-1,3-Dichloropropene	µg/m <sup>3</sup>	GC/MS	<0.15	<0.15	<0.15	-	-
4-Methyl-2-Pentanone	µg/m <sup>3</sup>	GC/MS	<0.12	<0.12	<0.12	-	-
Toluene	µg/m <sup>3</sup>	GC/MS	2.0	2.0	6.6	-	-

**Remark :** <sup>1/</sup> Notification of National Environmental Board, No.30, B.E.2550 (2007), published in the Royal Government Gazette No.124 Special Part 143D dated September 28, B.E.2550 (2007).

<sup>2/</sup> Notification of Pollution Control Department, B.E.2551 (2008), published in the Royal Government Gazette No.126 Special Part 13D dated January 27, B.E.2552 (2009).

<sup>3/</sup> Notification of National Environmental Board, B.E.2560 (2017), published in the Royal Government Gazette No.134 Special Part 230D dated September 20, B.E.2560 (2017).

<sup>4/</sup> Analyzed Sample by S.P.S. Consulting Co., Ltd.



(Ms. Panicha Promchai)  
Laboratory Supervisor



## ANALYSIS REPORT

**Customer Name** : NFC PCL.  
**Address** : No.2, I-2 Road, Map Ta Phut Industrial Estate, Muang Rayong, Rayong 21150  
**Project Name** : โครงการทำเทียบเรือ (ครั้งที่ 1)  
**Sampling Source** : Ambient Air Quality  
**Sampling Point** : บริเวณชุมชนมาบตาพุดเมืองใหม่ ตำบลมาบตาพุด อำเภอเมืองระยอง จังหวัดระยอง  
**GPS. Coordinate** : UTM (WGS84) 47P 0734598 E, 1406363 N  
**Sampling Date** : June 9-12, 2022  
**Sampling Time** : 09:12  
**Sampling Method** : U.S. EPA Method TO-15  
**Sample Condition** : Canister  
**Sampling By** : Mr.Akarawat Kochobog

**Analysis No.** : AB740/2565  
**Received Date** : June 15, 2022  
**Analytical Date** : June 15-28, 2022  
**Report Date** : July 1, 2022

Parameter	Unit	Method of Analysis	Result			Standard	
			Jun 9-10, 22	Jun 10-11, 22	Jun 11-12, 22	NEB <sup>1/</sup>	PCD <sup>2/</sup>
<b>Volatile Organic Compounds<sup>4/</sup></b>							
cis-1,3-Dichloropropene	µg/m <sup>3</sup>	GC/MS	<0.25	<0.25	<0.25	-	-
1,1,2-Trichloroethane	µg/m <sup>3</sup>	GC/MS	<0.24	<0.24	<0.24	-	-
Tetrachloroethylene	µg/m <sup>3</sup>	GC/MS	<0.39	<0.39	<0.39	200	400
3-Hexanone	µg/m <sup>3</sup>	GC/MS	<0.33	<0.33	<0.33	-	-
2-Hexanone	µg/m <sup>3</sup>	GC/MS	<0.20	<0.20	<0.20	-	-
Hexanal	µg/m <sup>3</sup>	GC/MS	<0.30	<0.30	<0.30	-	-
1,2-Dibromoethane	µg/m <sup>3</sup>	GC/MS	<0.51	<0.51	<0.51	-	370
Chlorobenzene	µg/m <sup>3</sup>	GC/MS	<0.23	<0.23	<0.23	-	-
Ethylbenzene	µg/m <sup>3</sup>	GC/MS	<0.13	<0.13	<0.13	-	-
m,p-Xylene	µg/m <sup>3</sup>	GC/MS	3.4	1.3	3.8	-	-
o-Xylene	µg/m <sup>3</sup>	GC/MS	<0.16	<0.16	<0.16	-	-
Styrene	µg/m <sup>3</sup>	GC/MS	<0.07	0.38	0.13	-	-
Bromoform	µg/m <sup>3</sup>	GC/MS	<0.87	<0.87	<0.87	-	-
1,1,2,2-Tetrachloroethane	µg/m <sup>3</sup>	GC/MS	<0.64	<0.64	<0.64	-	83
1,3,5-Trimethylbenzene	µg/m <sup>3</sup>	GC/MS	<0.49	<0.49	<0.49	-	-
1,2,4-Trimethylbenzene	µg/m <sup>3</sup>	GC/MS	<0.42	<0.42	<0.42	-	-
1,3-Dichlorobenzene	µg/m <sup>3</sup>	GC/MS	<0.39	<0.39	<0.39	-	-
1,4-Dichlorobenzene	µg/m <sup>3</sup>	GC/MS	<0.47	<0.47	<0.47	-	1,100
1,2,3-Trimethylbenzene	µg/m <sup>3</sup>	GC/MS	<0.27	<0.27	<0.27	-	-
Benzyl Chloride	µg/m <sup>3</sup>	GC/MS	<0.25	<0.25	<0.25	-	12
1,2-Dichlorobenzene	µg/m <sup>3</sup>	GC/MS	<0.35	<0.35	<0.35	-	-
1,2,4-Trichlorobenzene	µg/m <sup>3</sup>	GC/MS	<0.13	<0.13	<0.13	-	-
Acrylonitrile	µg/m <sup>3</sup>	GC/MS	<0.15	<0.15	<0.15	-	10
Methanol	µg/m <sup>3</sup>	GC/MS	4.9	1.9	5.0	-	-
Total Xylene	µg/m <sup>3</sup>	GC/MS	3.4	1.3	3.8	-	-

**Remark :** <sup>1/</sup> Notification of National Environmental Board, No.30, B.E.2550 (2007), published in the Royal Government Gazette No.124 Special Part 143D dated September 28, B.E.2550 (2007).

<sup>2/</sup> Notification of Pollution Control Department, B.E.2551 (2008), published in the Royal Government Gazette No.126 Special Part 13D dated January 27, B.E.2552 (2009).

<sup>3/</sup> Notification of National Environmental Board, B.E.2560 (2017), published in the Royal Government Gazette No.134 Special Part 230D dated September 20, B.E.2560 (2017).

<sup>4/</sup> Analyzed Sample by S.P.S. Consulting Co., Ltd.



(Ms. Panicha Promchai)  
Laboratory Supervisor



## ANALYSIS REPORT

**Customer Name** : NFC PCL.  
**Address** : No.2, I-2 Road, Map Ta Phut Industrial Estate, Muang Rayong, Rayong 21150  
**Project Name** : โครงการทำเทียบเรือ (ครั้งที่ 1)  
**Sampling Source** : Ambient Air Quality  
**Sampling Point** : บริเวณสถานคุ้มครองสวัสดิภาพเด็กกระยอง (สถานเยาวชนห้วยโป่ง)  
เลขที่ 318 ถนนสุขุมวิท ตำบลมาบตาพุด อำเภอเมืองระยอง จังหวัดระยอง  
**GPS. Coordinate** : UTM (WGS84) 47P 0732302 E, 1407983 N  
**Sampling Date** : June 9-12, 2022 **Analysis No.** : AB741/2565  
**Sampling Time** : 09:47 **Received Date** : June 15, 2022  
**Sampling Method** : U.S. EPA Method TO-15 **Analytical Date** : June 15-28, 2022  
**Sample Condition** : Canister **Report Date** : July 1, 2022  
**Sampling By** : Mr.Akarawat Kochobog

Parameter	Unit	Method of Analysis	Result			Standard	
			Jun 9-10, 22	Jun 10-11, 22	Jun 11-12, 22	NEB <sup>1/</sup>	PCD <sup>2/</sup>
<b>Volatile Organic Compounds<sup>4/</sup></b>							
Propene	µg/m <sup>3</sup>	GC/MS	<0.09	<0.09	<0.09	-	-
Dichlorodifluoromethane	µg/m <sup>3</sup>	GC/MS	1.6	1.5	1.5	-	-
Chlorodifluoromethane	µg/m <sup>3</sup>	GC/MS	0.74	0.74	0.74	-	-
1,2-Dichlorotetrafluoroethane	µg/m <sup>3</sup>	GC/MS	<0.25	<0.25	<0.25	-	-
Chloromethane	µg/m <sup>3</sup>	GC/MS	1.7	1.5	1.8	-	-
Isobutene	µg/m <sup>3</sup>	GC/MS	0.21	<0.05	0.41	-	-
Vinyl Chloride	µg/m <sup>3</sup>	GC/MS	<0.07	<0.07	<0.07	10	20
1,3-Butadiene	µg/m <sup>3</sup>	GC/MS	<0.07	<0.07	<0.07	0.33	5.3
Acetaldehyde	µg/m <sup>3</sup>	GC/MS	6.6	3.4	6.3	-	860
Bromomethane	µg/m <sup>3</sup>	GC/MS	<0.08	<0.08	<0.08	-	190
Chloroethane	µg/m <sup>3</sup>	GC/MS	<0.03	<0.03	<0.03	-	-
Trichlorofluoromethane	µg/m <sup>3</sup>	GC/MS	0.67	0.67	0.67	-	-
Pentane	µg/m <sup>3</sup>	GC/MS	<0.05	<0.05	<0.05	-	-
Ethanol	µg/m <sup>3</sup>	GC/MS	3.3	4.8	3.4	-	-
Isoprene	µg/m <sup>3</sup>	GC/MS	<0.06	<0.06	<0.06	-	-
Acrolein	µg/m <sup>3</sup>	GC/MS	<0.18	<0.18	<0.18	-	0.55
Propanal	µg/m <sup>3</sup>	GC/MS	<0.08	<0.08	<0.08	-	-
1,1-Dichloroethylene	µg/m <sup>3</sup>	GC/MS	<0.05	<0.05	<0.05	-	-
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m <sup>3</sup>	GC/MS	<0.13	<0.13	<0.13	-	-
Acetone	µg/m <sup>3</sup>	GC/MS	7.4	4.8	8.0	-	-
Methyl Iodide	µg/m <sup>3</sup>	GC/MS	<0.15	<0.15	<0.15	-	-
Carbondisulfide	µg/m <sup>3</sup>	GC/MS	2.9	4.8	5.5	100 <sup>3/</sup>	-
2-Propanol	µg/m <sup>3</sup>	GC/MS	<0.32	<0.32	<0.32	-	-
Acetonitrile	µg/m <sup>3</sup>	GC/MS	<0.07	<0.07	<0.07	-	-
Dichloromethane	µg/m <sup>3</sup>	GC/MS	<0.47	<0.47	<0.47	22	210
Cyclopentane	µg/m <sup>3</sup>	GC/MS	<0.09	<0.09	<0.09	-	-

**Remark :** <sup>1/</sup> Notification of National Environmental Board, No.30, B.E.2550 (2007), published in the Royal Government Gazette No.124 Special Part 143D dated September 28, B.E.2550 (2007).  
<sup>2/</sup> Notification of Pollution Control Department, B.E.2551 (2008), published in the Royal Government Gazette No.126 Special Part 13D dated January 27, B.E.2552 (2009).  
<sup>3/</sup> Notification of National Environmental Board, B.E.2560 (2017), published in the Royal Government Gazette No.134 Special Part 230D dated September 20, B.E.2560 (2017).  
<sup>4/</sup> Analyzed Sample by S.P.S. Consulting Co., Ltd.



(Ms. Panicha Promchai)  
Laboratory Supervisor

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REPORT ANALYSIS REFERS TO SUBMITTED SAMPLE (S) ONLY



## ANALYSIS REPORT

**Customer Name** : NFC PCL.  
**Address** : No.2, I-2 Road, Map Ta Phut Industrial Estate, Muang Rayong, Rayong 21150  
**Project Name** : โครงการทำเทียบเรือ (ครั้งที่ 1)  
**Sampling Source** : Ambient Air Quality  
**Sampling Point** : บริเวณสถานคุ้มครองสวัสดิภาพเด็กระยอง (สถานเยาวชนหญิงโป่ง)  
เลขที่ 318 ถนนสุขุมวิท ตำบลมาบตาพุด อำเภอเมืองระยอง จังหวัดระยอง  
**GPS. Coordinate** : UTM (WGS84) 47P 0732302 E, 1407983 N  
**Sampling Date** : June 9-12, 2022  
**Sampling Time** : 09:47  
**Sampling Method** : U.S. EPA Method TO-15  
**Sample Condition** : Canister  
**Sampling By** : Mr.Akarawat Kochobog  
**Analysis No.** : AB741/2565  
**Received Date** : June 15, 2022  
**Analytical Date** : June 15-28, 2022  
**Report Date** : July 1, 2022

Parameter	Unit	Method of Analysis	Result			Standard	
			Jun 9-10, 22	Jun 10-11, 22	Jun 11-12, 22	NEB <sup>1/</sup>	PCD <sup>2/</sup>
<b>Volatile Organic Compounds<sup>4/</sup></b>							
MTBE	µg/m <sup>3</sup>	GC/MS	<0.06	<0.06	<0.06	-	-
Hexane	µg/m <sup>3</sup>	GC/MS	4.4	4.3	1.5	-	-
Methacrolein	µg/m <sup>3</sup>	GC/MS	<0.24	<0.24	<0.24	-	-
1,1-Dichloroethane	µg/m <sup>3</sup>	GC/MS	<0.05	<0.05	<0.05	-	-
Vinyl Acetate	µg/m <sup>3</sup>	GC/MS	<0.38	<0.38	<0.38	-	-
1-Propanol	µg/m <sup>3</sup>	GC/MS	<0.06	<0.06	<0.06	-	-
Butanal	µg/m <sup>3</sup>	GC/MS	<0.11	<0.11	<0.11	-	-
Methyl Vinyl ketone	µg/m <sup>3</sup>	GC/MS	<0.30	<0.30	<0.30	-	-
cis-1,2-Dichloroethene	µg/m <sup>3</sup>	GC/MS	<0.08	<0.08	<0.08	-	-
Methyl ethyl ketone	µg/m <sup>3</sup>	GC/MS	<0.27	<0.27	<0.27	-	-
Chloroform	µg/m <sup>3</sup>	GC/MS	<0.05	<0.05	<0.05	0.43	57
1,1,1-Trichloroethane	µg/m <sup>3</sup>	GC/MS	<0.11	<0.11	<0.11	-	-
Cyclohexane	µg/m <sup>3</sup>	GC/MS	<0.04	<0.04	<0.04	-	-
Carbon Tetrachloride	µg/m <sup>3</sup>	GC/MS	<0.18	<0.18	<0.18	-	150
Benzene	µg/m <sup>3</sup>	GC/MS	0.67	0.19	0.77	1.7	7.6
1,2-Dichloroethane	µg/m <sup>3</sup>	GC/MS	<0.09	<0.09	<0.09	0.4	48
Trichloroethylene	µg/m <sup>3</sup>	GC/MS	<0.23	<0.23	<0.23	23	130
1-Butanol	µg/m <sup>3</sup>	GC/MS	<0.32	<0.32	<0.32	-	-
1,2-Dichloropropane	µg/m <sup>3</sup>	GC/MS	<0.19	<0.19	<0.19	4	82
2-Pentanone	µg/m <sup>3</sup>	GC/MS	<0.20	<0.20	<0.20	-	-
Pentanal	µg/m <sup>3</sup>	GC/MS	<0.06	<0.06	<0.06	-	-
3-Pentanone	µg/m <sup>3</sup>	GC/MS	<0.25	<0.25	<0.25	-	-
1,4-Dioxane	µg/m <sup>3</sup>	GC/MS	<0.20	<0.20	<0.20	-	860
Bromodichloromethane	µg/m <sup>3</sup>	GC/MS	<0.25	<0.25	<0.25	-	-
trans-1,3-Dichloropropene	µg/m <sup>3</sup>	GC/MS	<0.15	<0.15	<0.15	-	-
4-Methyl-2-Pentanone	µg/m <sup>3</sup>	GC/MS	<0.12	<0.12	<0.12	-	-
Toluene	µg/m <sup>3</sup>	GC/MS	0.90	0.79	1.7	-	-

**Remark :** <sup>1/</sup> Notification of National Environmental Board, No.30, B.E.2550 (2007), published in the Royal Government Gazette No.124 Special Part 143D dated September 28, B.E.2550 (2007).  
<sup>2/</sup> Notification of Pollution Control Department, B.E.2551 (2008), published in the Royal Government Gazette No.126 Special Part 13D dated January 27, B.E.2552 (2009).  
<sup>3/</sup> Notification of National Environmental Board, B.E.2560 (2017), published in the Royal Government Gazette No.134 Special Part 230D dated September 20, B.E.2560 (2017).  
<sup>4/</sup> Analyzed Sample by S.P.S. Consulting Co., Ltd.



(Ms. Panicha Promchai)  
Laboratory Supervisor



## ANALYSIS REPORT

**Customer Name** : NFC PCL.  
**Address** : No.2, I-2 Road, Map Ta Phut Industrial Estate, Muang Rayong, Rayong 21150  
**Project Name** : โครงการทำเทียบเรือ (ครั้งที่ 1)  
**Sampling Source** : Ambient Air Quality  
**Sampling Point** : บริเวณสถานคุ้มครองสวัสดิภาพเด็กระยอง (สถานเยาวชนห้วยโป่ง)  
เลขที่ 318 ถนนสุขุมวิท ตำบลมาบตาพุด อำเภอเมืองระยอง จังหวัดระยอง  
**GPS. Coordinate** : UTM (WGS84) 47P 0732302 E, 1407983 N  
**Sampling Date** : June 9-12, 2022 **Analysis No.** : AB741/2565  
**Sampling Time** : 09:47 **Received Date** : June 15, 2022  
**Sampling Method** : U.S. EPA Method TO-15 **Analytical Date** : June 15-28, 2022  
**Sample Condition** : Canister **Report Date** : July 1, 2022  
**Sampling By** : Mr.Akarawat Kochobog

Parameter	Unit	Method of Analysis	Result			Standard	
			Jun 9-10, 22	Jun 10-11, 22	Jun 11-12, 22	NEB <sup>1/</sup>	PCD <sup>2/</sup>
<b>Volatile Organic Compounds<sup>4/</sup></b>							
cis-1,3-Dichloropropene	µg/m <sup>3</sup>	GC/MS	<0.25	<0.25	<0.25	-	-
1,1,2-Trichloroethane	µg/m <sup>3</sup>	GC/MS	<0.24	<0.24	<0.24	-	-
Tetrachloroethylene	µg/m <sup>3</sup>	GC/MS	<0.39	<0.39	<0.39	200	400
3-Hexanone	µg/m <sup>3</sup>	GC/MS	<0.33	<0.33	<0.33	-	-
2-Hexanone	µg/m <sup>3</sup>	GC/MS	<0.20	<0.20	<0.20	-	-
Hexanal	µg/m <sup>3</sup>	GC/MS	<0.30	<0.30	<0.30	-	-
1,2-Dibromoethane	µg/m <sup>3</sup>	GC/MS	<0.51	<0.51	<0.51	-	370
Chlorobenzene	µg/m <sup>3</sup>	GC/MS	<0.23	<0.23	<0.23	-	-
Ethylbenzene	µg/m <sup>3</sup>	GC/MS	<0.13	<0.13	<0.13	-	-
m,p-Xylene	µg/m <sup>3</sup>	GC/MS	1.3	1.4	2.5	-	-
o-Xylene	µg/m <sup>3</sup>	GC/MS	<0.16	<0.16	<0.16	-	-
Styrene	µg/m <sup>3</sup>	GC/MS	<0.07	<0.07	<0.07	-	-
Bromoform	µg/m <sup>3</sup>	GC/MS	<0.87	<0.87	<0.87	-	-
1,1,2,2-Tetrachloroethane	µg/m <sup>3</sup>	GC/MS	<0.64	<0.64	<0.64	-	83
1,3,5-Trimethylbenzene	µg/m <sup>3</sup>	GC/MS	<0.49	<0.49	<0.49	-	-
1,2,4-Trimethylbenzene	µg/m <sup>3</sup>	GC/MS	<0.42	<0.42	<0.42	-	-
1,3-Dichlorobenzene	µg/m <sup>3</sup>	GC/MS	<0.39	<0.39	<0.39	-	-
1,4-Dichlorobenzene	µg/m <sup>3</sup>	GC/MS	<0.47	<0.47	<0.47	-	1,100
1,2,3-Trimethylbenzene	µg/m <sup>3</sup>	GC/MS	<0.27	<0.27	<0.27	-	-
Benzyl Chloride	µg/m <sup>3</sup>	GC/MS	<0.25	<0.25	<0.25	-	12
1,2-Dichlorobenzene	µg/m <sup>3</sup>	GC/MS	<0.35	<0.35	<0.35	-	-
1,2,4-Trichlorobenzene	µg/m <sup>3</sup>	GC/MS	<0.13	<0.13	<0.13	-	-
Acrylonitrile	µg/m <sup>3</sup>	GC/MS	<0.15	<0.15	<0.15	-	10
Methanol	µg/m <sup>3</sup>	GC/MS	4.3	3.3	4.8	-	-
Total Xylene	µg/m <sup>3</sup>	GC/MS	1.3	1.4	2.5	-	-

**Remark :** <sup>1/</sup> Notification of National Environmental Board, No.30, B.E.2550 (2007), published in the Royal Government Gazette No.124 Special Part 143D dated September 28, B.E.2550 (2007).

<sup>2/</sup> Notification of Pollution Control Department, B.E.2551 (2008), published in the Royal Government Gazette No.126 Special Part 13D dated January 27, B.E.2552 (2009).

<sup>3/</sup> Notification of National Environmental Board, B.E.2560 (2017), published in the Royal Government Gazette No.134 Special Part 230D dated September 20, B.E.2560 (2017).

<sup>4/</sup> Analyzed Sample by S.P.S. Consulting Co., Ltd.



(Ms. Panicha Promchai)  
Laboratory Supervisor

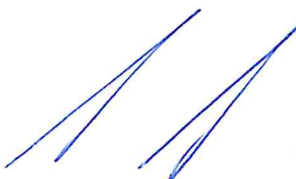


## ANALYSIS REPORT


**Customer Name** : NFC PCL.  
**Address** : No.2, I-2 Road, Map Ta Phut Industrial Estate, Muang Rayong, Rayong 21150  
**Project Name** : โครงการท่าเทียบเรือ (ครั้งที่ 1)  
**Measured Source** : Work Place Noise  
**Measured Date** : March 14, 2022  
**Measured By** : Mr.Natthapon Suttimon  
**Analyzed By** : Environment Research & Technology Co., Ltd.  
**Measured Instrument** : Integrating Sound Level Meter Type II, ACO Model 6226 Serial Number 160119  
**Reported Number** : NHA078/2565

Measured Location	Interval Time	Equivalent Level; dB(A)	Maximum Level; dB(A)	Standard <sup>1/</sup>
Loading Arm	08:41 - 09:41	69.1	88.5	-
	09:41 - 10:41	62.2	82.8	-
	10:41 - 11:41	59.5	66.3	-
	11:41 - 12:41	60.4	69.1	-
	12:41 - 13:41	59.9	67.9	-
	13:41 - 14:41	60.0	77.4	-
	14:41 - 15:41	59.9	66.1	-
	15:41 - 16:41	58.7	65.3	-
	<b>Equivalent Level 8 hrs (Leq 8 hrs)</b>	<b>62.9</b>		<b>90</b>
	<b>Maximum Level (Lmax)</b>	<b>88.5</b>		<b>140</b>

**Remark :** <sup>1/</sup> Notification of the Ministry of Industry regarding Working Environment, Occupation Health and Safety Measurements issued under Factory Act B.E.2535 (1992), published in the Royal Government Gazette, Vol.120, Part 138D dated December 3, B.E.2546 (2003).

  
(Ms. Supawan Suwannapa)  
Laboratory Reviewer



  
(Ms. Thanida Bunrungrueang)  
Laboratory Supervisor