

## ANALYSIS REPORT

**CUSTOMER NAME** : TPI POLENE PUBLIC COMPANY LIMITED  
**ADDRESS** : 299 MOO 5 MITRAPARP ROAD MITTRAPHAP TABKWANG KAENGKOI SARABURI 18260  
**CONTACT INFORMATION** : TEL : 0 3633 9111 EXT. 1743 e-mail : chod.padmuk@gmail.com  
**SAMPLING SOURCE** : บ่อน้ำบาดาลสถานีวิจัยห้วยขวาง  
**SAMPLE TYPE** : GROUNDWATER  
**SAMPLING DATE** : MARCH 22, 2022  
**SAMPLING TIME** : 12:05 HOUR  
**SAMPLING METHOD °** : GRAB  
**SAMPLING BY °** : MR MANIT PANCHOT  
**ANALYZED BY** : MISS PORNPIMOL WAENTHONG

**RECEIVED DATE** : MARCH 22, 2022  
**ANALYTICAL DATE** : MARCH 22-30, 2022  
**REPORT NO.** : 2022-U024470  
**WORK NO.** : 2021-008992  
**ANALYSIS NO.** : T22AF527-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			GROUNDWATER T22AF527-0003		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.0 (28°C)	-	-
TURBIDITY °	NTU	NEPHELOMETRIC METHOD (SM: 2130 B)	1.0	-	0.1
TOTAL SUSPENDED SOLIDS °	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	ND	-	5.0
TOTAL DISSOLVED SOLIDS °	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: 2540 C)	480	-	25
TOTAL HARDNESS °	mg/L as CaCO <sub>3</sub>	EDTA TITRIMETRIC METHOD (SM: 2340 C)	381	-	4.0
SULPHATE °	mg/L SO <sub>4</sub> <sup>2-</sup>	TURBIDIMETRIC METHOD (SM: 4500-SO <sub>4</sub> <sup>2-</sup> E)	53.6	-	0.3
CHLORIDE °	mg/L Cl <sup>-</sup>	ARGENTOMETRIC METHOD (SM: 4500-Cl <sup>-</sup> B)	8.3	-	2.0
<b>METALS</b>					
IRON °	mg/L Fe	IN-HOUSE METHOD: UAE.TP.GW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM: 3030 E AND 3111 B	< LOQ	-	0.005
<b>SAMPLE CONDITION</b> WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR		

° : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

° : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

° : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

REGULATORY STANDARD : GROUNDWATER QUALITY STANDARDS, NOTIFICATION OF THE NATIONAL ENVIRONMENT BOARD NO.20 (B.E. 2543) ISSUED UNDER THE ENHANCEMENT AND CONSERVATION OF NATIONAL ENVIRONMENTAL QUALITY ACT B.E. 2535.

ND : NON-DETECTABLE.

< LOQ : < LEVEL OF QUANTITATION (IRON ≥ 0.005 AND < 0.050 mg/L).

(MISS BENJAWAN VIRIYOTHAJ)  
LABORATORY SUPERVISOR

APRIL 4, 2022



## ANALYSIS REPORT

**CUSTOMER NAME** : TPI POLENE PUBLIC COMPANY LIMITED  
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**CONTACT INFORMATION** : TEL : 0 3633 9111 EXT. 1743 e-mail : chod.padmuk@gmail.com  
**SAMPLING SOURCE** : บ่อบาดาลวัดพระธาตุเจริญธรรม  
**SAMPLE TYPE** : GROUNDWATER  
**SAMPLING DATE** : MARCH 22, 2022  
**SAMPLING TIME** : 11:00 HOUR  
**SAMPLING METHOD °** : GRAB  
**SAMPLING BY °** : MR MANIT PANCHOT  
**ANALYZED BY** : MISS PORNPIMOL WAENTHONG

**RECEIVED DATE** : MARCH 22, 2022  
**ANALYTICAL DATE** : MARCH 22-30, 2022  
**REPORT NO.** : 2022-U024471  
**WORK NO.** : 2021-008992  
**ANALYSIS NO.** : T22AF527-0004

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			GROUNDWATER T22AF527-0004		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.1 (28°C)	-	-
TURBIDITY °	NTU	NEPHELOMETRIC METHOD (SM: 2130 B)	0.4	-	0.1
TOTAL SUSPENDED SOLIDS °	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	ND	-	5.0
TOTAL DISSOLVED SOLIDS °	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: 2540 C)	624	-	25
TOTAL HARDNESS °	mg/L as CaCO <sub>3</sub>	EDTA TITRIMETRIC METHOD (SM: 2340 C)	447	-	4.0
SULPHATE °	mg/L SO <sub>4</sub> <sup>2-</sup>	TURBIDIMETRIC METHOD (SM: 4500-SO <sub>4</sub> <sup>2-</sup> E)	77.9	-	0.3
CHLORIDE °	mg/L Cl <sup>-</sup>	ARGENTOMETRIC METHOD (SM: 4500-Cl <sup>-</sup> B)	39.6	-	2.0
<b>METALS</b>					
IRON °	mg/L Fe	IN-HOUSE METHOD: UAE.TP.GW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM: 3030 E AND 3111 B	< LOQ	-	0.005
<b>SAMPLE CONDITION</b> WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR		

° : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

° : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

° : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

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REGULATORY STANDARD : GROUNDWATER QUALITY STANDARDS, NOTIFICATION OF THE NATIONAL ENVIRONMENT BOARD NO.20 (B.E. 2543) ISSUED UNDER THE ENHANCEMENT AND CONSERVATION OF NATIONAL ENVIRONMENTAL QUALITY ACT B.E. 2535.

ND : NON-DETECTABLE.

< LOQ : < LEVEL OF QUANTITATION (IRON ≥ 0.005 AND < 0.050 mg/L).

(MISS BENJAWAN VIRIYOTHAI)  
LABORATORY SUPERVISOR

APRIL 4, 2022



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**CONTACT INFORMATION** : TEL : 0 3633 9111 EXT. 1743 e-mail : chod.padmuk@gmail.com  
**SAMPLING SOURCE** : บ่อบาดาลชุมชนเกษตรสัมพันธ์  
**SAMPLE TYPE** : GROUNDWATER  
**SAMPLING DATE** : MARCH 22, 2022  
**SAMPLING TIME** : 12:15 HOUR  
**SAMPLING METHOD °** : GRAB  
**SAMPLING BY °** : MR MANIT PANCHOT  
**ANALYZED BY** : MISS PORNPIMOL WAENTHONG

**RECEIVED DATE** : MARCH 22, 2022  
**ANALYTICAL DATE** : MARCH 22-30, 2022  
**REPORT NO.** : 2022-U024472  
**WORK NO.** : 2021-008992  
**ANALYSIS NO.** : T22AF527-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			GROUNDWATER T22AF527-0005		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	6.9 (28°C)	-	-
TURBIDITY °	NTU	NEPHELOMETRIC METHOD (SM: 2130 B)	0.2	-	0.1
TOTAL SUSPENDED SOLIDS °	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	ND	-	5.0
TOTAL DISSOLVED SOLIDS °	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: 2540 C)	620	-	25
TOTAL HARDNESS °	mg/L as CaCO <sub>3</sub>	EDTA TITRIMETRIC METHOD (SM: 2340 C)	435	-	4.0
SULPHATE °	mg/L SO <sub>4</sub> <sup>2-</sup>	TURBIDIMETRIC METHOD (SM: 4500-SO <sub>4</sub> <sup>2-</sup> E)	65.3	-	0.3
CHLORIDE °	mg/L Cl <sup>-</sup>	ARGENTOMETRIC METHOD (SM: 4500-Cl <sup>-</sup> B)	26.9	-	2.0
<b>METALS</b>					
IRON °	mg/L Fe	IN-HOUSE METHOD: UAE.TP.GW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM: 3030 E AND 3111 B	< LOQ	-	0.005
<b>SAMPLE CONDITION</b>					
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR GREY		

° : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

° : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

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