

ภาคผนวก ค

เอกสารประกอบมาตรการติดตามตรวจสอบ

ผลกระทบสิ่งแวดล้อม

ภาคผนวก ค-1

ผลการตรวจวัดคุณภาพสิ่งแวดล้อม

คุณภาพอากาศจากแหล่งกำเนิด



Analysis / Test Report

TESTING
No.0042

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23115660

Date Received : Oct 06, 2023

Date Reported : Oct 13, 2023

Report Number: 2796260-1

Page 1 of 2

Sample Number 23115660-1
Sampled Date Oct 06, 2023
Sample Description Emission from Stationary Source
Location HRSG #2
Date Analysis Commenced Oct 07, 2023
Condition of Sample Extracted into two 2-L collection flasks, one filter paper placed in plastic petri dish, one plastic bottle and one amber plastic bottle, refrigerated

Stack Description

Ambient Pressure	754	mmHg	Diameter	2.95	m	Oxygen	12.3	%
Ambient Temperature	31.0	°C	Shape	Circle		Carbon Dioxide	4.9	%
Type of Process	Combustion		Stack Temperature	87.2	°C	Gas Velocity	21.7	m/s
Type of Fuel	Natural Gas		Moisture	9.72	%	Flow Rate (Actual O2)	394783	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result at 7 %O ₂	Guideline (1)	Guideline (2)	Method	Testing Location
Air Testing									
Oxides of Nitrogen *	09:30 AM - 09:40 AM	ppm	-	1.06	44.5	60	120	United States Environmental Protection Agency, EPA Method 7	Rayong
Sulfur dioxide *	09:30 AM - 10:00 AM	ppm	-	2.0	<2.0	15	20	United States Environmental Protection Agency, EPA Method 6	Rayong
Total Suspended Particulate	09:30 AM - 10:30 AM	mg/m3	-	0.5	<0.5	40	60	United States Environmental Protection Agency, EPA Method 5	Rayong

Guideline : Guideline (1) Environmental Impact Assessment Report of Nexif Ratch Energy Rayong Co., Ltd.

Guideline (2) Notification of the Ministry of Natural Resources and Environment, 2010 (B.E. 2553) on Emission Standard from New Power Plants.

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

ทะเบียนเลขที่ ว-323-จ-9447

Approved by

D. Changchon

Dej Changchon
Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING
No.0042

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23115660
Date Received : Oct 06, 2023
Date Reported : Oct 13, 2023
Report Number: 2796260-1

Page 2 of 2

Sample Number 23115660-1
Sampled Date Oct 06, 2023
Sample Description Emission from Stationary Source
Location HRSG #2
Date Analysis Commenced Oct 07, 2023
Condition of Sample Extracted into two 2-L collection flasks, one filter paper placed in plastic petri dish, one plastic bottle and one amber plastic bottle, refrigerated

Stack Description

Ambient Pressure	754	mmHg	Diameter	2.95	m	Oxygen	12.3	%
Ambient Temperature	31.0	°C	Shape	Circle		Carbon Dioxide	4.9	%
Type of Process	Combustion		Stack Temperature	87.2	°C	Gas Velocity	21.7	m/s
Type of Fuel	Natural Gas		Moisture	9.72	%	Flow Rate (Actual O2)	394783	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result Emission Rate	Guideline (1)	Guideline (2)	Method	Testing Location
Air Testing									
Oxides of Nitrogen *	09:30 AM - 09:40 AM	g/s	-	-	5.680	9.97	-	Calculated	Rayong
Sulfur dioxide *	09:30 AM - 10:00 AM	g/s	-	-	<0.548	3.47	-	Calculated	Rayong
Total Suspended Particulate *	09:30 AM - 10:30 AM	g/s	-	-	<0.055	3.53	-	Calculated	Rayong

Guideline : Guideline (1) Environmental Impact Assessment Report of Nexif Ratch Energy Rayong Co., Ltd.
Guideline (2) Notification of the Ministry of Natural Resources and Environment, 2010 (B.E. 2553) on Emission Standard from New Power Plants.

Sampled By : Sathapron Thakarw

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)
ทะเบียนเลขที่ ว-323-จ-9447

Approved by

D. Changchon

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Senior Manager
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18309-21/ EMAIL

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คุณภาพอากาศในบรรยากาศ



Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120

P/O : PO-2302-0003

Project Name :

Project Location :

Lot ID: 23116308

Date Received : Oct 12, 2023

Date Reported : Oct 19, 2023

Report Number: 2796269-1

Page 1 of 1

Sample Description Air Quality
Location A1 : หมู่ 10 ถนนพหลโยธิน (GPS 47P 0741951, 1416054)
Parameter Nitrogen dioxide (ppm)
Measurement Date Oct 05, 2023 - Oct 12, 2023
Measurement by Mongkon Phalathip

Time	23116308-1 Oct 05, 2023	23116308-2 Oct 06, 2023	23116308-3 Oct 07, 2023	23116308-4 Oct 08, 2023	23116308-5 Oct 09, 2023	23116308-6 Oct 10, 2023	23116308-7 Oct 11, 2023
09:00 AM - 10:00 AM	<0.001	0.004	0.004	0.001	0.008	0.003	0.004
10:00 AM - 11:00 AM	<0.001	0.003	0.002	0.001	0.006	0.002	0.005
11:00 AM - 12:00 PM	0.001	0.002	0.005	<0.001	0.009	0.002	0.003
12:00 PM - 01:00 PM	0.001	0.001	0.008	<0.001	0.004	0.002	0.003
01:00 PM - 02:00 PM	0.001	0.001	<0.001	<0.001	0.002	<0.001	0.002
02:00 PM - 03:00 PM	<0.001	0.001	<0.001	0.001	<0.001	0.001	0.002
03:00 PM - 04:00 PM	0.001	0.001	0.002	<0.001	0.002	<0.001	0.001
04:00 PM - 05:00 PM	<0.001	0.001	0.001	0.001	0.003	<0.001	0.002
05:00 PM - 06:00 PM	<0.001	0.001	0.002	<0.001	0.002	<0.001	0.002
06:00 PM - 07:00 PM	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	0.001
07:00 PM - 08:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
08:00 PM - 09:00 PM	0.001	<0.001	<0.001	0.004	<0.001	<0.001	<0.001
09:00 PM - 10:00 PM	0.005	0.002	<0.001	0.006	0.001	<0.001	<0.001
10:00 PM - 11:00 PM	0.006	0.006	0.001	0.002	0.002	<0.001	0.002
11:00 PM - 12:00 AM	0.003	0.008	0.001	0.003	0.002	0.001	0.006
12:00 AM - 01:00 AM	0.002	0.007	0.003	0.003	0.003	<0.001	0.009
01:00 AM - 02:00 AM	<0.001	0.004	0.006	0.003	0.002	<0.001	0.008
02:00 AM - 03:00 AM	<0.001	0.002	0.004	0.004	0.002	<0.001	0.005
03:00 AM - 04:00 AM	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	0.002
04:00 AM - 05:00 AM	0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001
05:00 AM - 06:00 AM	0.001	<0.001	0.001	0.003	<0.001	0.001	<0.001
06:00 AM - 07:00 AM	<0.001	<0.001	0.002	0.002	<0.001	0.002	<0.001
07:00 AM - 08:00 AM	0.011	0.002	0.005	0.013	<0.001	0.002	<0.001
08:00 AM - 09:00 AM	0.005	0.007	0.002	0.021	0.002	0.006	0.002
Average	0.002	0.002	0.002	0.003	0.002	0.001	0.003
1hr - Maximum	0.011	0.008	0.008	0.021	0.009	0.006	0.009
Standard 1hr - Average	0.170	0.170	0.170	0.170	0.170	0.170	0.170

Standard : Notification of the National Environment Board No. 33, 2009 (B.E. 2552).

Reference Method : US EPA Method Part 50 App. F (Chemiluminescence)

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Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23116308

Date Received : Oct 12, 2023
Date Reported : Oct 26, 2023
Report Number: 2811947-1 Rev. No.1

Page 1 of 1

Sample Description Air Quality
Location A2 : วัดกระเจต (GPS 47P 0741408, 1411396)
Parameter Nitrogen dioxide (ppm)
Measurement Date Oct 05, 2023 - Oct 12, 2023
Measurement by Mongkon Phalathip

	23116308-8	23116308-9	23116308-10	23116308-11	23116308-12	23116308-13	23116308-14
Time	Oct 05, 2023	Oct 06, 2023	Oct 07, 2023	Oct 08, 2023	Oct 09, 2023	Oct 10, 2023	Oct 11, 2023
10:00 AM - 11:00 AM	0.004	0.004	0.008	0.004	0.002	0.001	0.004
11:00 AM - 12:00 PM	0.003	0.003	0.012	0.002	0.003	0.001	0.001
12:00 PM - 01:00 PM	0.015	0.004	0.008	0.003	<0.001	0.001	0.002
01:00 PM - 02:00 PM	0.005	0.004	0.002	0.002	<0.001	<0.001	<0.001
02:00 PM - 03:00 PM	0.004	0.004	0.002	0.004	0.002	<0.001	0.003
03:00 PM - 04:00 PM	0.007	0.006	0.002	0.004	0.003	<0.001	0.003
04:00 PM - 05:00 PM	0.002	0.006	0.004	0.005	0.004	<0.001	0.004
05:00 PM - 06:00 PM	<0.001	0.003	0.002	0.003	0.003	<0.001	0.002
06:00 PM - 07:00 PM	<0.001	0.005	0.004	0.004	0.010	<0.001	0.003
07:00 PM - 08:00 PM	<0.001	0.003	0.004	<0.001	0.007	<0.001	<0.001
08:00 PM - 09:00 PM	0.002	0.003	0.005	0.002	0.002	0.001	<0.001
09:00 PM - 10:00 PM	0.003	<0.001	0.002	<0.001	0.003	0.002	<0.001
10:00 PM - 11:00 PM	0.004	<0.001	0.002	0.003	0.003	0.002	0.002
11:00 PM - 12:00 AM	0.002	0.002	0.002	0.003	0.004	0.002	0.002
12:00 AM - 01:00 AM	0.005	0.002	0.001	0.002	0.003	0.002	0.001
01:00 AM - 02:00 AM	0.002	0.001	0.002	0.002	0.002	<0.001	<0.001
02:00 AM - 03:00 AM	<0.001	0.002	0.004	0.002	0.002	0.001	<0.001
03:00 AM - 04:00 AM	0.003	0.002	0.003	0.002	0.001	<0.001	<0.001
04:00 AM - 05:00 AM	<0.001	0.002	0.002	0.002	<0.001	<0.001	0.001
05:00 AM - 06:00 AM	0.002	0.002	0.003	0.001	<0.001	0.002	<0.001
06:00 AM - 07:00 AM	0.003	0.002	0.004	0.006	0.001	0.002	0.005
07:00 AM - 08:00 AM	0.006	0.004	0.005	0.003	0.001	0.009	0.002
08:00 AM - 09:00 AM	0.016	0.002	0.004	0.001	0.002	0.004	0.004
09:00 AM - 10:00 AM	0.005	0.002	0.003	0.001	0.002	0.003	0.004
Average	0.004	0.003	0.004	0.003	0.003	0.002	0.002
1hr - Maximum	0.016	0.006	0.012	0.006	0.010	0.009	0.005
Standard 1hr - Average	0.170	0.170	0.170	0.170	0.170	0.170	0.170

Standard : Notification of the National Environment Board No. 33, 2009 (B.E. 2552).

Reference Method : US EPA Method Part 50 App. F (Chemiluminescence)

Note : This Analysis test report is reissued to supersede report No.2811947-1, Date Reported : Oct 19, 2023 due to revise sample information.

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Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23116308
Date Received : Oct 12, 2023
Date Reported : Oct 19, 2023
Report Number: 2811948-1

Page 1 of 1

Sample Description	Air Quality						
Location	A3 : วัดหนองกระหมอก (GPS 47P 0747563, 1413915)						
Parameter	Nitrogen dioxide (ppm)						
Measurement Date	Oct 05, 2023 - Oct 12, 2023						
Measurement by	Mongkon Phalathip						
Time	23116308-15 Oct 05, 2023	23116308-16 Oct 06, 2023	23116308-17 Oct 07, 2023	23116308-18 Oct 08, 2023	23116308-19 Oct 09, 2023	23116308-20 Oct 10, 2023	23116308-21 Oct 11, 2023
11:00 AM - 12:00 PM	0.012	0.009	0.010	0.014	0.011	0.009	0.008
12:00 PM - 01:00 PM	0.011	0.011	0.010	0.016	0.008	0.009	0.007
01:00 PM - 02:00 PM	0.010	0.011	0.012	0.016	0.009	0.011	0.008
02:00 PM - 03:00 PM	0.011	0.012	0.009	0.009	0.011	0.011	0.014
03:00 PM - 04:00 PM	0.010	0.013	0.010	0.010	0.014	0.023	0.015
04:00 PM - 05:00 PM	0.011	0.011	0.009	0.009	0.015	0.017	0.011
05:00 PM - 06:00 PM	0.010	0.010	0.011	0.010	0.016	0.014	0.010
06:00 PM - 07:00 PM	0.009	0.009	0.008	0.009	0.011	0.016	0.011
07:00 PM - 08:00 PM	0.011	0.007	0.008	0.009	0.010	0.013	0.012
08:00 PM - 09:00 PM	0.013	0.009	0.008	0.009	0.012	0.014	0.012
09:00 PM - 10:00 PM	0.014	0.008	0.010	0.010	0.011	0.010	0.011
10:00 PM - 11:00 PM	0.011	0.010	0.010	0.009	0.012	0.009	0.010
11:00 PM - 12:00 AM	0.010	0.010	0.009	0.008	0.010	0.008	0.010
12:00 AM - 01:00 AM	0.008	0.008	0.007	0.007	0.008	0.007	0.009
01:00 AM - 02:00 AM	0.006	0.007	0.007	0.006	0.008	0.007	0.008
02:00 AM - 03:00 AM	0.006	0.005	0.007	0.005	0.006	0.006	0.009
03:00 AM - 04:00 AM	0.006	0.006	0.006	0.005	0.007	0.006	0.009
04:00 AM - 05:00 AM	0.005	0.006	0.005	0.005	0.008	0.006	0.009
05:00 AM - 06:00 AM	0.006	0.005	0.005	0.005	0.007	0.006	0.009
06:00 AM - 07:00 AM	0.005	0.006	0.005	0.004	0.008	0.006	0.009
07:00 AM - 08:00 AM	0.005	0.007	0.005	0.005	0.008	0.007	0.011
08:00 AM - 09:00 AM	0.007	0.007	0.006	0.005	0.012	0.008	0.014
09:00 AM - 10:00 AM	0.006	0.008	0.007	0.008	0.011	0.008	0.011
10:00 AM - 11:00 AM	0.009	0.008	0.009	0.010	0.008	0.009	0.012
Average	0.009	0.008	0.008	0.009	0.010	0.010	0.010
1hr - Maximum	0.014	0.013	0.012	0.016	0.016	0.023	0.015
Standard 1hr - Average	0.170	0.170	0.170	0.170	0.170	0.170	0.170

Standard : Notification of the National Environment Board No. 33, 2009 (B.E. 2552).
Reference Method : US EPAMethod Part 50 App. F (Chemiluminescence)

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Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23116310
Date Received : Oct 12, 2023
Date Reported : Oct 19, 2023
Report Number: 2796329-1

Page 1 of 1

Sample Description	Air Quality						
Location	A1 : หมู่ 10 บ้านนาบดอง (GPS 47P 0741951, 1416054)						
Parameter	Sulfur Dioxide (ppm)						
Measurement Date	Oct 05, 2023 - Oct 12, 2023						
Measurement by	Mongkon Phalathip						
	23116310-1	23116310-2	23116310-3	23116310-4	23116310-5	23116310-6	23116310-7
Time	Oct 05, 2023	Oct 06, 2023	Oct 07, 2023	Oct 08, 2023	Oct 09, 2023	Oct 10, 2023	Oct 11, 2023
09:00 AM - 10:00 AM	<0.001	<0.001	0.001	<0.001	<0.001	0.001	0.001
10:00 AM - 11:00 AM	<0.001	<0.001	0.001	<0.001	<0.001	0.001	0.001
11:00 AM - 12:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.001
12:00 PM - 01:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
01:00 PM - 02:00 PM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
02:00 PM - 03:00 PM	<0.001	<0.001	0.001	<0.001	0.001	<0.001	0.001
03:00 PM - 04:00 PM	<0.001	<0.001	0.001	<0.001	0.001	<0.001	0.001
04:00 PM - 05:00 PM	<0.001	<0.001	0.001	<0.001	0.001	0.001	<0.001
05:00 PM - 06:00 PM	<0.001	<0.001	0.001	<0.001	<0.001	0.001	0.001
06:00 PM - 07:00 PM	<0.001	<0.001	0.001	<0.001	0.001	0.001	0.001
07:00 PM - 08:00 PM	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
08:00 PM - 09:00 PM	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	0.001
09:00 PM - 10:00 PM	<0.001	0.001	<0.001	0.001	<0.001	<0.001	<0.001
10:00 PM - 11:00 PM	<0.001	0.001	<0.001	0.001	0.001	<0.001	<0.001
11:00 PM - 12:00 AM	<0.001	0.001	0.001	<0.001	0.001	<0.001	<0.001
12:00 AM - 01:00 AM	<0.001	0.001	<0.001	<0.001	0.001	0.001	0.001
01:00 AM - 02:00 AM	<0.001	0.001	<0.001	0.001	0.001	0.001	0.001
02:00 AM - 03:00 AM	<0.001	<0.001	<0.001	0.001	<0.001	0.001	0.001
03:00 AM - 04:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
04:00 AM - 05:00 AM	<0.001	<0.001	<0.001	0.001	0.001	0.001	0.001
05:00 AM - 06:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
06:00 AM - 07:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
07:00 AM - 08:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.001
08:00 AM - 09:00 AM	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.001
Average	<0.001	<0.001	<0.001	<0.001	0.001	0.001	0.001
1hr - Maximum	<0.001	0.001	0.001	0.001	0.001	0.001	0.001
Standard 1hr - Average	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Standard 24 hrs - Average	0.12	0.12	0.12	0.12	0.12	0.12	0.12

Standard : Notification of the National Environment Board No.10, 1995 (B.E.2538), No. 21, 2001 (B.E.2544) and No.24, 2004 (B.E.2547).
Reference Method : US EPA Method Part 53 and 58

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Approved by

Orawan R.

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



Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23116310
Date Received : Oct 12, 2023
Date Reported : Oct 26, 2023
Report Number: 2811950-1 Rev. No.1

Page 1 of 1

Sample Description	Air Quality						
Location	A2 : วัดกระเจา (GPS 47P 0741408, 1411396)						
Parameter	Sulfur Dioxide (ppm)						
Measurement Date	Oct 05, 2023 - Oct 12, 2023						
Measurement by	Mongkon Phalathip						
	23116310-8	23116310-9	23116310-10	23116310-11	23116310-12	23116310-13	23116310-14
Time	Oct 05, 2023	Oct 06, 2023	Oct 07, 2023	Oct 08, 2023	Oct 09, 2023	Oct 10, 2023	Oct 11, 2023
10:00 AM - 11:00 AM	0.001	0.001	0.001	0.001	0.001	0.001	0.001
11:00 AM - 12:00 PM	<0.001	0.001	0.001	0.001	0.001	0.001	0.001
12:00 PM - 01:00 PM	0.001	<0.001	<0.001	0.001	0.001	0.001	0.001
01:00 PM - 02:00 PM	0.001	<0.001	<0.001	<0.001	0.001	0.001	0.001
02:00 PM - 03:00 PM	0.001	0.001	<0.001	0.001	0.001	<0.001	<0.001
03:00 PM - 04:00 PM	0.001	0.001	<0.001	0.001	0.001	<0.001	<0.001
04:00 PM - 05:00 PM	0.001	0.001	<0.001	0.001	0.001	<0.001	0.001
05:00 PM - 06:00 PM	0.001	0.001	<0.001	<0.001	0.001	<0.001	0.001
06:00 PM - 07:00 PM	<0.001	0.001	<0.001	0.001	0.001	<0.001	0.001
07:00 PM - 08:00 PM	0.001	0.001	0.001	<0.001	0.001	<0.001	0.001
08:00 PM - 09:00 PM	0.001	0.001	0.001	<0.001	0.001	<0.001	<0.001
09:00 PM - 10:00 PM	0.001	0.001	<0.001	<0.001	0.001	<0.001	0.001
10:00 PM - 11:00 PM	0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
11:00 PM - 12:00 AM	0.001	0.001	<0.001	<0.001	0.001	<0.001	<0.001
12:00 AM - 01:00 AM	0.001	0.001	<0.001	<0.001	0.001	<0.001	<0.001
01:00 AM - 02:00 AM	0.001	0.001	<0.001	<0.001	0.001	<0.001	<0.001
02:00 AM - 03:00 AM	0.001	0.001	<0.001	0.001	0.001	<0.001	0.001
03:00 AM - 04:00 AM	0.001	0.001	<0.001	0.001	0.001	<0.001	0.001
04:00 AM - 05:00 AM	0.001	<0.001	<0.001	0.001	0.001	<0.001	<0.001
05:00 AM - 06:00 AM	0.001	<0.001	<0.001	0.001	0.001	<0.001	0.001
06:00 AM - 07:00 AM	0.001	0.001	<0.001	0.001	0.001	<0.001	0.001
07:00 AM - 08:00 AM	0.001	0.001	0.001	0.001	0.001	0.001	0.001
08:00 AM - 09:00 AM	0.001	0.001	0.001	0.001	0.001	0.001	0.001
09:00 AM - 10:00 AM	0.001	0.001	0.001	<0.001	0.001	<0.001	<0.001
Average	0.001	0.001	<0.001	0.001	0.001	<0.001	0.001
1hr - Maximum	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Standard 1hr - Average	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Standard 24 hrs - Average	0.12	0.12	0.12	0.12	0.12	0.12	0.12

Standard : Notification of the National Environment Board No.10, 1995 (B.E.2538), No. 21, 2001 (B.E.2544) and No.24, 2004 (B.E.2547).
Reference Method : US EPA Method Part 53 and 58

Note : This Analysis test report is reissued to supersede report No 2811950-1 Date Reported : Oct 19,2023 due to revise Sample information.

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Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23116310
Date Received : Oct 12, 2023
Date Reported : Oct 19, 2023
Report Number: 2811951-1

Page 1 of 1

Sample Description	Air Quality						
Location	A3 : วัดหนองกระบอก (GPS 47P 0747563, 1413915)						
Parameter	Sulfur Dioxide (ppm)						
Measurement Date	Oct 05, 2023 - Oct 12, 2023						
Measurement by	Mongkon Phalathip						
	23116310-15	23116310-16	23116310-17	23116310-18	23116310-19	23116310-20	23116310-21
Time	Oct 05, 2023	Oct 06, 2023	Oct 07, 2023	Oct 08, 2023	Oct 09, 2023	Oct 10, 2023	Oct 11, 2023
11:00 AM - 12:00 PM	0.001	0.002	0.002	0.003	0.002	0.002	0.002
12:00 PM - 01:00 PM	0.001	0.002	0.003	0.003	0.002	0.002	0.001
01:00 PM - 02:00 PM	<0.001	0.003	0.002	0.002	0.002	0.002	0.002
02:00 PM - 03:00 PM	0.001	0.002	<0.001	<0.001	0.002	0.002	0.002
03:00 PM - 04:00 PM	0.001	0.001	<0.001	0.001	0.002	0.002	0.002
04:00 PM - 05:00 PM	<0.001	<0.001	<0.001	0.001	0.002	0.001	0.001
05:00 PM - 06:00 PM	<0.001	0.001	0.001	0.001	0.002	<0.001	<0.001
06:00 PM - 07:00 PM	<0.001	0.001	0.001	0.001	0.001	<0.001	0.001
07:00 PM - 08:00 PM	<0.001	0.001	0.001	0.001	0.001	0.001	0.001
08:00 PM - 09:00 PM	<0.001	0.001	0.001	0.001	0.001	<0.001	0.001
09:00 PM - 10:00 PM	<0.001	0.001	0.001	0.001	0.001	0.001	0.001
10:00 PM - 11:00 PM	0.001	0.001	0.001	0.001	0.001	0.001	0.001
11:00 PM - 12:00 AM	0.001	0.001	0.001	0.001	0.001	0.001	0.001
12:00 AM - 01:00 AM	0.001	0.001	0.001	0.001	0.001	0.001	0.001
01:00 AM - 02:00 AM	0.001	0.001	0.001	0.001	0.001	0.001	0.001
02:00 AM - 03:00 AM	0.001	0.001	0.001	0.001	0.001	0.001	0.001
03:00 AM - 04:00 AM	0.001	0.001	0.001	0.001	0.001	0.001	0.001
04:00 AM - 05:00 AM	0.001	0.001	0.001	0.001	0.001	0.001	0.002
05:00 AM - 06:00 AM	0.001	0.001	0.001	0.001	0.001	0.001	0.001
06:00 AM - 07:00 AM	0.001	0.001	0.001	0.001	0.001	0.001	0.001
07:00 AM - 08:00 AM	0.001	0.001	0.001	0.001	0.001	0.001	0.002
08:00 AM - 09:00 AM	0.001	0.002	0.001	0.002	0.001	0.001	0.001
09:00 AM - 10:00 AM	0.002	0.002	0.002	0.002	0.002	0.002	0.001
10:00 AM - 11:00 AM	0.002	0.002	0.002	0.001	0.002	0.002	0.002
Average	0.001	0.001	0.001	0.001	0.001	0.001	0.001
1hr - Maximum	0.002	0.003	0.003	0.003	0.002	0.002	0.002
Standard 1hr - Average	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Standard 24 hrs - Average	0.12	0.12	0.12	0.12	0.12	0.12	0.12

Standard : Notification of the National Environment Board No.10, 1995 (B.E.2538), No. 21, 2001 (B.E.2544) and No.24, 2004 (B.E.2547).
Reference Method : US EPA Method Part 53 and 58

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Orawan Rakyong
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Analysis / Test Report

TESTING
No.0042

Client : Ratch Energy Rayong Co., Ltd.

222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120

P/O : PO-2302-0003

Project Name :

Project Location :

Lot ID: 23116319

Date Received : Oct 12, 2023

Date Reported : Oct 27, 2023

Report Number: 2796477-1

Page 1 of 1

Sample Description	Air Quality				
Location	A1 : หมู่ 10 บ้านมาบดอง (GPS 47P 0741951, 1416054)				
Date Analysis Commenced	Oct 13, 2023				
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one quartz filter paper (8x10 inch) placed in plastic bag				
Sample Number	Sampled Date	Total Suspended Particulate (mg/m3)	Particulate Matter (PM-10) (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
23116319-1	Oct 05 - Oct 06, 2023	0.021	0.013	757	30
23116319-2	Oct 06 - Oct 07, 2023	0.017	0.013	757	30
23116319-3	Oct 07 - Oct 08, 2023	0.018	0.011	757	31
23116319-4	Oct 08 - Oct 09, 2023	0.023	0.016	757	31
23116319-5	Oct 09 - Oct 10, 2023	0.027	0.020	757	31
23116319-6	Oct 10 - Oct 11, 2023	0.034	0.027	757	31
23116319-7	Oct 11 - Oct 12, 2023	0.035	0.029	757	32
Guideline		0.33	0.12	-	-

Reference Method

Total Suspended Particulate : US EPA 40 CFR Part 50 Appendix B

Particulate Matter (PM-10) : US EPA 40 CFR Part 50 Appendix J

Guideline : Notification of the National Environmental Board. No.24, 2004 (B.E.2547) dated September 22, 2004

Sampled By : Mongkon Phalathip

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

TESTING
No.0042

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23116319
Date Received : Oct 12, 2023
Date Reported : Oct 27, 2023
Report Number: 2796477-2 Rev. No.1

Page 1 of 1

Sample Description	Air Quality				
Location	A2 : วัดกระเจ็ด (GPS 47P 0741408, 1411396)				
Date Analysis Commenced	Oct 13, 2023				
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one quartz filter paper (8x10 inch) placed in plastic bag				
Sample Number	Sampled Date	Total Suspended Particulate (mg/m3)	Particulate Matter (PM-10) (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
23116319-8	Oct 05 - Oct 06, 2023	0.028	0.018	757	30
23116319-9	Oct 06 - Oct 07, 2023	0.030	0.016	757	30
23116319-10	Oct 07 - Oct 08, 2023	0.038	0.019	757	31
23116319-11	Oct 08 - Oct 09, 2023	0.036	0.021	757	31
23116319-12	Oct 09 - Oct 10, 2023	0.042	0.027	757	31
23116319-13	Oct 10 - Oct 11, 2023	0.044	0.028	757	31
23116319-14	Oct 11 - Oct 12, 2023	0.037	0.022	757	32
Guideline		0.33	0.12	-	-

Reference Method

Total Suspended Particulate : US EPA 40 CFR Part 50 Appendix B

Particulate Matter (PM-10) : US EPA 40 CFR Part 50 Appendix J

Guideline : Notification of the National Environmental Board. No.24, 2004 (B.E.2547) dated September 22, 2004

Sampled By : Mongkon Phalathip

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

TESTING
No.0042

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23116319
Date Received : Oct 12, 2023
Date Reported : Oct 27, 2023
Report Number: 2796477-3

Page 1 of 1

Sample Description	Air Quality				
Location	A3 : วัดหนองกระบอก (GPS 47P 0747563, 1413915)				
Date Analysis Commenced	Oct 13, 2023				
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one quartz filter paper (8x10 inch) placed in plastic bag				
Sample Number	Sampled Date	Total Suspended Particulate (mg/m3)	Particulate Matter (PM-10) (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
23116319-15	Oct 05 - Oct 06, 2023	0.034	0.021	757	30
23116319-16	Oct 06 - Oct 07, 2023	0.031	0.021	757	30
23116319-17	Oct 07 - Oct 08, 2023	0.030	0.019	757	31
23116319-18	Oct 08 - Oct 09, 2023	0.038	0.018	757	31
23116319-19	Oct 09 - Oct 10, 2023	0.042	0.023	757	31
23116319-20	Oct 10 - Oct 11, 2023	0.039	0.025	757	31
23116319-21	Oct 11 - Oct 12, 2023	0.049	0.026	757	32
Guideline		0.33	0.12	-	-

Reference Method

Total Suspended Particulate : US EPA 40 CFR Part 50 Appendix B

Particulate Matter (PM-10) : US EPA 40 CFR Part 50 Appendix J

Guideline : Notification of the National Environmental Board. No.24, 2004 (B.E.2547) dated September 22, 2004

Sampled By : Mongkon Phalathip

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120

P/O : PO-2302-0003

Project Name :

Project Location :

Lot ID: 23116311

Date Received :Oct 12, 2023

Date Reported :Oct 20, 2023

Report Number :2796426-1

Page 1 of 2

Sample Number 23116311-1 to 7
Parameter Wind Speed / Wind Direction
Location A2 : วัดกระเจา (GPS 47P 0741408, 1411396)
Sampling Date Oct 05 - Oct 12, 2023
Sampling by Mongkon Phalathip

Time	Oct 05 - Oct 06, 2023		Oct 06 - Oct 07, 2023		Oct 07 - Oct 08, 2023		Oct 08 - Oct 09, 2023		Oct 09 - Oct 10, 2023		Oct 10 - Oct 11, 2023		Oct 11 - Oct 12, 2023	
	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
10:00 AM - 11:00 AM	0.2	-	0.1	-	0.1	-	1.2	305.0	0.0	-	0.1	-	0.0	-
11:00 AM - 12:00 PM	0.1	-	0.3	174.0	0.1	-	2.0	44.0	1.0	32.0	0.1	-	0.7	23.0
12:00 PM - 01:00 PM	0.0	-	0.0	-	0.2	-	0.3	60.0	0.0	-	0.2	-	0.0	-
01:00 PM - 02:00 PM	0.1	-	0.0	-	0.3	166.0	0.2	-	1.2	179.0	0.0	-	0.4	171.0
02:00 PM - 03:00 PM	0.4	192.0	0.0	-	0.1	-	0.1	-	0.3	215.0	0.2	-	0.2	-
03:00 PM - 04:00 PM	0.0	-	1.0	174.0	0.2	-	0.4	312.0	0.1	-	0.1	-	0.1	-
04:00 PM - 05:00 PM	0.0	-	0.3	172.0	0.1	-	0.2	-	0.2	-	0.1	-	0.1	-
05:00 PM - 06:00 PM	0.4	200.0	0.1	-	0.1	-	0.1	-	0.2	-	0.1	-	0.2	-
06:00 PM - 07:00 PM	0.3	179.0	0.2	-	0.1	-	0.2	-	0.3	170.0	0.2	-	0.1	-
07:00 PM - 08:00 PM	0.2	-	0.1	-	0.0	-	0.1	-	0.1	-	0.0	-	0.1	-
08:00 PM - 09:00 PM	0.2	-	0.2	-	0.0	-	0.1	-	0.0	-	0.2	-	0.2	-
09:00 PM - 10:00 PM	0.3	173.0	0.1	-	0.0	-	0.0	-	0.1	-	0.1	-	0.2	-
10:00 PM - 11:00 PM	0.1	-	0.1	-	0.0	-	0.2	-	0.3	170.0	0.2	-	0.1	-
11:00 PM - 12:00 AM	0.0	-	0.2	-	0.0	-	0.1	-	0.1	-	0.1	-	0.1	-
12:00 AM - 01:00 AM	0.1	-	0.1	-	0.1	-	0.0	-	0.0	-	0.1	-	0.1	-
01:00 AM - 02:00 AM	0.0	-	0.0	-	0.1	-	0.1	-	0.1	-	0.1	-	0.2	-
02:00 AM - 03:00 AM	0.1	-	0.0	-	0.1	-	0.1	-	0.2	-	0.0	-	0.2	-
03:00 AM - 04:00 AM	0.0	-	0.2	-	0.0	-	0.2	-	0.1	-	0.1	-	0.2	-
04:00 AM - 05:00 AM	0.1	-	0.1	-	0.2	-	0.3	261.0	0.0	-	0.1	-	0.0	-
05:00 AM - 06:00 AM	0.1	-	0.1	-	0.0	-	0.0	-	0.0	-	0.2	-	0.0	-
06:00 AM - 07:00 AM	0.0	-	0.2	-	0.1	-	0.0	-	0.2	-	0.1	-	1.8	341.0
07:00 AM - 08:00 AM	0.0	-	0.1	-	0.0	-	0.0	-	0.1	-	0.3	41.0	0.1	-
08:00 AM - 09:00 AM	0.0	-	0.2	-	0.0	-	0.0	-	0.3	62.0	0.4	46.0	0.3	42.0
09:00 AM - 10:00 AM	0.2	-	0.2	-	0.0	-	0.0	-	0.2	-	0.0	-	0.0	-

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Approved by

Sarayuth Jittrantont
Assistant General Manager



Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.

222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120

P/O : PO-2302-0003

Project Name :

Project Location :

Lot ID: 23116311

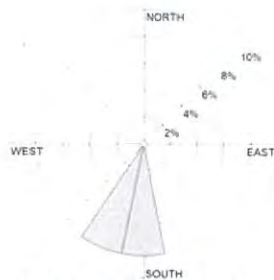
Date Received :Oct 12, 2023

Date Reported :Oct 20, 2023

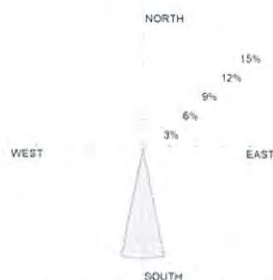
Report Number :2796426-1

Page 2 of 2

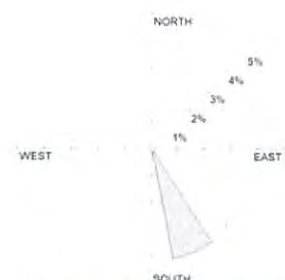
Wind Rose



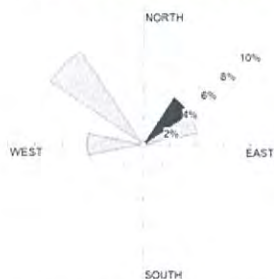
Date : Oct 05-06, 2023



Date : Oct 06-07, 2023



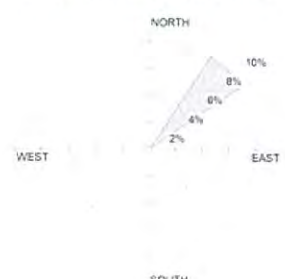
Date : Oct 07-08, 2023



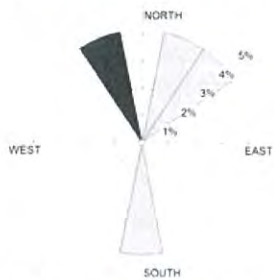
Date : Oct 08-09, 2023



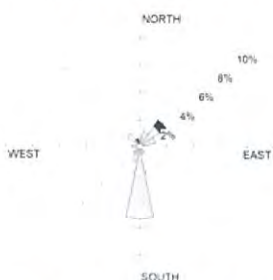
Date : Oct 09-10, 2023



Date : Oct 10-11, 2023



Date : Oct 11-12, 2023



Date : Oct 05-12, 2023

WS(m/s)	%
≥ 10.0	0.00
8.0-10.0	0.00
5.5-8.0	0.00
3.3-5.5	0.00
1.7-3.3	1.19
0.3-1.7	13.69
Calms	85.12

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Approved by

Sarayuth Jittranont
Assistant General Manager

ระดับเสียง



Analysis / Test Report

TESTING
No.0042

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23116322
Date Received : Oct 12, 2023
Date Reported : Oct 18, 2023
Report Number: 2806748-1

Page 1 of 1

Sample Number 23116322-1
Parameter Noise (Leq 24 hrs.)
Location N1 : หมู่ 10 บ้านนาบดอง (GPS 47P 0742983, 1415574)
Measurement Date Oct 05 - Oct 06, 2023
Measurement by Mongkon Phalathip
Sound Level meter Serial No. 623396

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	55.7	84.9	42.8
11:00 AM - 12:00 PM	50.8	79.7	42.4
12:00 PM - 01:00 PM	55.6	71.6	47.1
01:00 PM - 02:00 PM	48.4	69.9	45.3
02:00 PM - 03:00 PM	48.3	73.7	45.5
03:00 PM - 04:00 PM	55.3	81.8	46.1
04:00 PM - 05:00 PM	52.9	80.6	44.1
05:00 PM - 06:00 PM	53.7	78.7	48.2
06:00 PM - 07:00 PM	50.8	69.2	47.9
07:00 PM - 08:00 PM	49.6	75.7	45.4
08:00 PM - 09:00 PM	49.4	61.1	47.1
09:00 PM - 10:00 PM	51.5	64.8	47.9
10:00 PM - 11:00 PM	64.4	92.5	49.6
11:00 PM - 12:00 AM	62.2	92.7	47.6
12:00 AM - 01:00 AM	50.3	67.0	45.8
01:00 AM - 02:00 AM	48.0	62.9	46.3
02:00 AM - 03:00 AM	49.8	74.4	46.4
03:00 AM - 04:00 AM	51.3	77.1	46.1
04:00 AM - 05:00 AM	53.9	76.0	47.0
05:00 AM - 06:00 AM	51.1	74.8	46.1
06:00 AM - 07:00 AM	49.5	75.2	44.3
07:00 AM - 08:00 AM	47.8	74.2	42.4
08:00 AM - 09:00 AM	55.2	86.3	40.8
09:00 AM - 10:00 AM	47.3	69.3	42.1

Leq Average 24 hrs. (dB(A)) 55.2
Lmax (dB(A)) 92.7
L90 (dB(A)) 46.1
Ldn (dB(A)) 63.6
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report



TESTING
No.0042

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23116322

Date Received : Oct 12, 2023

Date Reported : Oct 18, 2023

Report Number: 2806749-1

Page 1 of 1

Sample Number 23116322-2
Parameter Noise (Leq 24 hrs.)
Location N1 : หมู่ 10 บ้านมาบตอง (GPS 47P 0742983, 1415574)
Measurement Date Oct 06 - Oct 07, 2023
Measurement by Mongkon Phalathip
Sound Level meter Serial No. 623396

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	47.4	64.4	42.7
11:00 AM - 12:00 PM	47.2	71.3	41.4
12:00 PM - 01:00 PM	45.2	59.0	41.9
01:00 PM - 02:00 PM	53.8	83.6	41.5
02:00 PM - 03:00 PM	51.1	80.4	41.5
03:00 PM - 04:00 PM	55.3	78.2	41.7
04:00 PM - 05:00 PM	55.9	80.6	42.8
05:00 PM - 06:00 PM	49.4	80.4	44.2
06:00 PM - 07:00 PM	47.9	64.2	46.2
07:00 PM - 08:00 PM	47.1	67.7	45.7
08:00 PM - 09:00 PM	49.3	61.5	46.7
09:00 PM - 10:00 PM	50.8	64.0	48.4
10:00 PM - 11:00 PM	48.4	61.5	45.9
11:00 PM - 12:00 AM	47.1	62.3	44.7
12:00 AM - 01:00 AM	46.6	76.0	44.4
01:00 AM - 02:00 AM	47.6	73.5	43.9
02:00 AM - 03:00 AM	45.1	54.8	43.5
03:00 AM - 04:00 AM	50.8	74.3	44.0
04:00 AM - 05:00 AM	52.4	76.6	44.9
05:00 AM - 06:00 AM	57.9	93.2	44.9
06:00 AM - 07:00 AM	50.9	69.8	44.8
07:00 AM - 08:00 AM	47.2	66.6	43.1
08:00 AM - 09:00 AM	49.6	80.4	43.6
09:00 AM - 10:00 AM	48.0	67.5	42.7

Leq Average 24 hrs. (dB(A)) 51.2
Lmax (dB(A)) 93.2
L90 (dB(A)) 43.9
Ldn (dB(A)) 57.9

Standard (dB(A))

70

115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการ
โรงงาน พ.ศ. 2548

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report



TESTING
No.0042

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120

P/O : PO-2302-0003

Project Name :

Project Location :

Lot ID: 23116322

Date Received : Oct 12, 2023

Date Reported : Oct 18, 2023

Report Number: 2806750-1

Page 1 of 1

Sample Number 23116322-3
Parameter Noise (Leq 24 hrs.)
Location N1 : หมู่ 10 บ้านมาตอง (GPS 47P 0742983, 1415574)
Measurement Date Oct 07 - Oct 08, 2023
Measurement by Mongkon Phalathip
Sound Level meter Serial No. 623396

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	60.5	100.4	42.1
11:00 AM - 12:00 PM	47.3	62.3	41.2
12:00 PM - 01:00 PM	46.8	76.8	41.3
01:00 PM - 02:00 PM	45.0	68.4	42.1
02:00 PM - 03:00 PM	46.7	62.9	42.4
03:00 PM - 04:00 PM	57.9	78.6	45.6
04:00 PM - 05:00 PM	53.0	76.9	44.0
05:00 PM - 06:00 PM	54.0	78.9	44.7
06:00 PM - 07:00 PM	46.5	65.6	44.2
07:00 PM - 08:00 PM	52.4	75.7	43.5
08:00 PM - 09:00 PM	55.5	81.0	45.9
09:00 PM - 10:00 PM	47.5	61.6	45.6
10:00 PM - 11:00 PM	49.0	67.2	46.0
11:00 PM - 12:00 AM	50.3	79.4	46.2
12:00 AM - 01:00 AM	48.1	61.5	45.9
01:00 AM - 02:00 AM	47.2	73.0	42.7
02:00 AM - 03:00 AM	47.2	73.8	43.5
03:00 AM - 04:00 AM	52.1	76.4	46.9
04:00 AM - 05:00 AM	54.7	75.2	48.5
05:00 AM - 06:00 AM	54.8	75.2	47.1
06:00 AM - 07:00 AM	51.7	71.9	43.6
07:00 AM - 08:00 AM	48.1	68.5	43.4
08:00 AM - 09:00 AM	50.3	78.9	42.4
09:00 AM - 10:00 AM	46.7	69.6	40.4

Leq Average 24 hrs. (dB(A))

52.7

Lmax (dB(A))

100.4

L90 (dB(A))

43.6

Ldn (dB(A))

58.2

Standard (dB(A))

70

115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป

2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548

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

Technical Management

Thanita K.

Thanita Kulsuriwong

Scientist (4)

Approved by

Supot S.

Supot Salamteh

Section Head

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Analysis / Test Report



TESTING
No.0042

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23116322
Date Received : Oct 12, 2023
Date Reported : Oct 18, 2023
Report Number: 2806751-1

Page 1 of 1

Sample Number 23116322-4
Parameter Noise (Leq 24 hrs.)
Location N1 : หมู่ 10 บ้านมาบดอง (GPS 47P 0742983, 1415574)
Measurement Date Oct 08 - Oct 09, 2023
Measurement by Mongkon Phalathip
Sound Level meter Serial No. 623396

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	54.8	87.7	41.4
11:00 AM - 12:00 PM	46.1	68.3	40.6
12:00 PM - 01:00 PM	49.4	73.3	41.6
01:00 PM - 02:00 PM	51.3	76.6	41.9
02:00 PM - 03:00 PM	47.6	73.8	44.2
03:00 PM - 04:00 PM	49.3	76.4	44.0
04:00 PM - 05:00 PM	49.4	72.6	45.3
05:00 PM - 06:00 PM	48.6	76.7	45.8
06:00 PM - 07:00 PM	47.2	63.4	45.4
07:00 PM - 08:00 PM	45.8	61.3	44.4
08:00 PM - 09:00 PM	47.4	77.3	44.4
09:00 PM - 10:00 PM	50.1	67.8	46.8
10:00 PM - 11:00 PM	49.6	64.7	47.0
11:00 PM - 12:00 AM	48.4	69.1	45.8
12:00 AM - 01:00 AM	47.4	61.4	45.3
01:00 AM - 02:00 AM	50.5	73.2	46.8
02:00 AM - 03:00 AM	51.8	73.2	48.4
03:00 AM - 04:00 AM	54.3	74.3	49.1
04:00 AM - 05:00 AM	55.0	84.2	48.6
05:00 AM - 06:00 AM	51.5	71.0	46.7
06:00 AM - 07:00 AM	51.2	78.4	45.9
07:00 AM - 08:00 AM	47.4	67.6	42.3
08:00 AM - 09:00 AM	49.4	77.7	41.8
09:00 AM - 10:00 AM	48.0	74.7	41.0

Leq Average 24 hrs. (dB(A)) 50.4
Lmax (dB(A)) 87.7
L90 (dB(A)) 45.3
Ldn (dB(A)) 57.9
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report



TESTING
No.0042

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23116322
Date Received : Oct 12, 2023
Date Reported : Oct 18, 2023
Report Number: 2806752-1

Page 1 of 1

Sample Number 23116322-5
Parameter Noise (Leq 24 hrs.)
Location N1 : หมู่ 10 บ้านมาบดอง (GPS 47P 0742983, 1415574)
Measurement Date Oct 09 - Oct 10, 2023
Measurement by Mongkon Phalathip
Sound Level meter Serial No. 623396

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	44.4	70.5	37.2
11:00 AM - 12:00 PM	48.3	69.6	37.5
12:00 PM - 01:00 PM	45.3	65.8	38.5
01:00 PM - 02:00 PM	45.8	68.2	39.1
02:00 PM - 03:00 PM	47.5	73.2	40.4
03:00 PM - 04:00 PM	48.9	76.7	42.8
04:00 PM - 05:00 PM	47.4	78.3	44.2
05:00 PM - 06:00 PM	46.9	61.6	45.2
06:00 PM - 07:00 PM	44.6	61.6	43.1
07:00 PM - 08:00 PM	48.9	79.6	45.0
08:00 PM - 09:00 PM	51.8	65.6	47.7
09:00 PM - 10:00 PM	51.3	75.5	48.2
10:00 PM - 11:00 PM	50.6	63.7	45.9
11:00 PM - 12:00 AM	48.6	63.9	45.0
12:00 AM - 01:00 AM	46.0	66.2	43.6
01:00 AM - 02:00 AM	48.6	71.8	44.7
02:00 AM - 03:00 AM	53.0	78.0	46.9
03:00 AM - 04:00 AM	55.6	83.1	49.9
04:00 AM - 05:00 AM	53.7	76.9	47.8
05:00 AM - 06:00 AM	51.9	76.1	46.2
06:00 AM - 07:00 AM	49.6	75.2	44.6
07:00 AM - 08:00 AM	48.5	74.2	41.9
08:00 AM - 09:00 AM	48.9	70.3	42.8
09:00 AM - 10:00 AM	46.8	71.2	37.5

Leq Average 24 hrs. (dB(A)) 49.9
Lmax (dB(A)) 83.1
L90 (dB(A)) 44.2
Ldn (dB(A)) 57.8
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supt S.

Supt Salameh
Section Head

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Analysis / Test Report



TESTING
No.0042

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23116322

Date Received : Oct 12, 2023

Date Reported : Oct 18, 2023

Report Number: 2806753-1

Page 1 of 1

Sample Number 23116322-6
Parameter Noise (Leq 24 hrs.)
Location N1 : หมู่ 10 บ้านมาบดอง (GPS 47P 0742983, 1415574)
Measurement Date Oct 10 - Oct 11, 2023
Measurement by Mongkon Phalathip
Sound Level meter Serial No. 623396

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	45.4	72.7	37.0
11:00 AM - 12:00 PM	47.6	78.5	37.0
12:00 PM - 01:00 PM	51.1	66.9	39.5
01:00 PM - 02:00 PM	49.8	72.2	40.2
02:00 PM - 03:00 PM	47.3	75.3	41.9
03:00 PM - 04:00 PM	49.4	74.3	42.1
04:00 PM - 05:00 PM	47.6	73.3	41.2
05:00 PM - 06:00 PM	52.2	76.8	41.7
06:00 PM - 07:00 PM	42.7	54.9	41.3
07:00 PM - 08:00 PM	45.5	59.0	42.3
08:00 PM - 09:00 PM	49.9	64.9	46.2
09:00 PM - 10:00 PM	48.0	61.1	45.4
10:00 PM - 11:00 PM	48.0	72.5	45.3
11:00 PM - 12:00 AM	47.7	57.6	45.5
12:00 AM - 01:00 AM	48.1	71.2	46.3
01:00 AM - 02:00 AM	48.6	73.1	44.8
02:00 AM - 03:00 AM	50.7	73.8	46.2
03:00 AM - 04:00 AM	52.0	75.3	46.7
04:00 AM - 05:00 AM	53.0	80.1	45.6
05:00 AM - 06:00 AM	53.0	79.7	45.3
06:00 AM - 07:00 AM	51.2	79.7	45.5
07:00 AM - 08:00 AM	48.1	72.9	43.4
08:00 AM - 09:00 AM	51.0	74.3	44.6
09:00 AM - 10:00 AM	52.3	79.4	46.0

Leq Average 24 hrs. (dB(A)) 49.9
Lmax (dB(A)) 80.1
L90 (dB(A)) 44.6
Ldn (dB(A)) 57.0
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report



TESTING
No.0042

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23116322
Date Received : Oct 12, 2023
Date Reported : Oct 18, 2023
Report Number: 2806754-1

Page 1 of 1

Sample Number 23116322-7
Parameter Noise (Leq 24 hrs.)
Location N1 : หมู่ 10 บ้านนาบดอง (GPS 47P 0742983, 1415574)
Measurement Date Oct 11 - Oct 12, 2023
Measurement by Mongkon Phalathip
Sound Level meter Serial No. 623396

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	50.1	74.9	44.2
11:00 AM - 12:00 PM	52.9	78.4	47.3
12:00 PM - 01:00 PM	54.6	75.5	50.3
01:00 PM - 02:00 PM	57.1	77.7	53.5
02:00 PM - 03:00 PM	55.1	73.0	52.1
03:00 PM - 04:00 PM	51.1	74.1	43.8
04:00 PM - 05:00 PM	44.9	70.4	40.8
05:00 PM - 06:00 PM	48.3	78.4	42.6
06:00 PM - 07:00 PM	43.1	57.3	41.3
07:00 PM - 08:00 PM	47.5	75.0	42.9
08:00 PM - 09:00 PM	51.3	65.2	46.7
09:00 PM - 10:00 PM	51.3	67.3	47.4
10:00 PM - 11:00 PM	51.6	67.2	48.0
11:00 PM - 12:00 AM	53.9	82.9	43.9
12:00 AM - 01:00 AM	48.4	74.2	45.8
01:00 AM - 02:00 AM	46.6	68.7	43.4
02:00 AM - 03:00 AM	48.3	70.3	43.7
03:00 AM - 04:00 AM	59.7	76.1	46.6
04:00 AM - 05:00 AM	65.2	83.0	48.3
05:00 AM - 06:00 AM	51.7	73.3	45.8
06:00 AM - 07:00 AM	50.3	69.1	45.9
07:00 AM - 08:00 AM	50.1	69.2	44.9
08:00 AM - 09:00 AM	51.8	70.4	46.2
09:00 AM - 10:00 AM	51.3	75.5	48.2

Leq Average 24 hrs. (dB(A)) 54.9
Lmax (dB(A)) 83.0
L90 (dB(A)) 45.8
Ldn (dB(A)) 63.4
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report



TESTING
No.0042

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23116322
Date Received : Oct 12, 2023
Date Reported : Oct 18, 2023
Report Number: 2806755-1

Page 1 of 1

Sample Number 23116322-8
Parameter Noise (Leq 24 hrs.)
Location N2 : รั้วโครงการระยะที่ 2 ทางด้านทิศใต้ (GPS 47P 0743692, 1414836)
Measurement Date Oct 05 - Oct 06, 2023
Measurement by Mongkon Phalathip
Sound Level meter Serial No. 623394

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	56.8	77.0	54.9
12:00 PM - 01:00 PM	63.3	89.5	54.7
01:00 PM - 02:00 PM	65.8	96.5	55.4
02:00 PM - 03:00 PM	57.0	76.4	55.2
03:00 PM - 04:00 PM	56.4	81.0	55.0
04:00 PM - 05:00 PM	57.1	77.4	54.9
05:00 PM - 06:00 PM	58.0	86.3	55.1
06:00 PM - 07:00 PM	58.1	79.6	55.4
07:00 PM - 08:00 PM	57.6	78.7	55.0
08:00 PM - 09:00 PM	56.2	78.3	55.0
09:00 PM - 10:00 PM	57.1	78.4	55.0
10:00 PM - 11:00 PM	56.2	75.2	55.0
11:00 PM - 12:00 AM	58.9	90.4	54.9
12:00 AM - 01:00 AM	59.1	91.0	54.7
01:00 AM - 02:00 AM	54.9	60.9	54.6
02:00 AM - 03:00 AM	54.9	66.2	54.6
03:00 AM - 04:00 AM	54.8	58.9	54.6
04:00 AM - 05:00 AM	54.7	62.0	54.4
05:00 AM - 06:00 AM	55.6	73.1	54.5
06:00 AM - 07:00 AM	59.3	81.1	55.0
07:00 AM - 08:00 AM	57.9	76.9	55.2
08:00 AM - 09:00 AM	57.5	78.6	55.4
09:00 AM - 10:00 AM	56.7	77.8	54.8
10:00 AM - 11:00 AM	56.8	77.8	54.5

Leq Average 24 hrs. (dB(A)) 58.6
Lmax (dB(A)) 96.5
L90 (dB(A)) 54.9
Ldn (dB(A)) 63.8

Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการ
โรงงาน พ.ศ. 2548

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23116322

Date Received : Oct 12, 2023

Date Reported : Oct 18, 2023

Report Number: 2806756-1

Page 1 of 1

Sample Number 23116322-9
Parameter Noise (Leq 24 hrs.)
Location N2 : ริมรั้วโครงการระยะที่ 2 ทางด้านทิศใต้ (GPS 47P 0743692, 1414836)
Measurement Date Oct 06 - Oct 07, 2023
Measurement by Mongkon Phalathip
Sound Level meter Serial No. 623394

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	57.3	81.4	54.6
12:00 PM - 01:00 PM	57.0	75.2	54.6
01:00 PM - 02:00 PM	56.5	74.4	54.7
02:00 PM - 03:00 PM	57.2	80.8	54.7
03:00 PM - 04:00 PM	56.3	74.0	54.8
04:00 PM - 05:00 PM	57.8	79.6	54.9
05:00 PM - 06:00 PM	58.3	84.2	55.0
06:00 PM - 07:00 PM	57.5	79.7	55.0
07:00 PM - 08:00 PM	57.7	77.0	54.9
08:00 PM - 09:00 PM	61.6	92.2	54.8
09:00 PM - 10:00 PM	55.5	76.2	54.9
10:00 PM - 11:00 PM	55.4	68.0	54.9
11:00 PM - 12:00 AM	54.9	69.6	54.4
12:00 AM - 01:00 AM	54.9	65.1	54.4
01:00 AM - 02:00 AM	54.9	63.9	54.4
02:00 AM - 03:00 AM	55.0	65.3	54.6
03:00 AM - 04:00 AM	54.5	57.4	54.3
04:00 AM - 05:00 AM	54.8	65.9	54.4
05:00 AM - 06:00 AM	54.9	71.4	54.3
06:00 AM - 07:00 AM	58.4	79.1	54.6
07:00 AM - 08:00 AM	58.1	85.2	54.6
08:00 AM - 09:00 AM	56.0	76.7	54.5
09:00 AM - 10:00 AM	58.2	73.2	54.3
10:00 AM - 11:00 AM	55.5	76.3	53.9

Leq Average 24 hrs. (dB(A)) 57.0
Lmax (dB(A)) 92.2
L90 (dB(A)) 54.6
Ldn (dB(A)) 62.3
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report



TESTING
No.0042

Client : Ratch Energy Rayong Co., Ltd.

222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120

P/O : PO-2302-0003

Project Name :

Project Location :

Lot ID: 23116322

Date Received : Oct 12, 2023

Date Reported : Oct 18, 2023

Report Number: 2806757-1

Page 1 of 1

Sample Number 23116322-10
Parameter Noise (Leq 24 hrs.)
Location N2 : ริมรั้วโครงการระยะที่ 2 ทางด้านทิศใต้ (GPS 47P 0743692, 1414836)
Measurement Date Oct 07 - Oct 08, 2023
Measurement by Mongkon Phalathip
Sound Level meter Serial No. 623394

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	56.7	80.4	54.1
12:00 PM - 01:00 PM	55.4	70.9	54.3
01:00 PM - 02:00 PM	55.1	71.0	54.3
02:00 PM - 03:00 PM	55.5	73.8	54.3
03:00 PM - 04:00 PM	56.0	74.1	54.4
04:00 PM - 05:00 PM	56.1	76.0	54.5
05:00 PM - 06:00 PM	56.4	75.6	54.6
06:00 PM - 07:00 PM	57.7	79.5	54.8
07:00 PM - 08:00 PM	58.2	79.9	54.5
08:00 PM - 09:00 PM	55.1	68.2	54.5
09:00 PM - 10:00 PM	56.5	81.0	54.6
10:00 PM - 11:00 PM	54.5	62.7	53.9
11:00 PM - 12:00 AM	54.9	71.1	54.0
12:00 AM - 01:00 AM	54.0	63.9	53.5
01:00 AM - 02:00 AM	53.9	68.6	53.4
02:00 AM - 03:00 AM	53.3	66.0	52.9
03:00 AM - 04:00 AM	53.1	55.4	52.8
04:00 AM - 05:00 AM	53.4	57.4	53.1
05:00 AM - 06:00 AM	54.1	71.0	53.1
06:00 AM - 07:00 AM	57.2	79.5	46.0
07:00 AM - 08:00 AM	58.1	90.7	51.3
08:00 AM - 09:00 AM	52.8	84.1	50.2
09:00 AM - 10:00 AM	53.4	77.3	50.7
10:00 AM - 11:00 AM	53.3	77.1	50.6

Leq Average 24 hrs. (dB(A)) 55.5
Lmax (dB(A)) 90.7
L90 (dB(A)) 53.9
Ldn (dB(A)) 61.1
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report



TESTING
No.0042

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23116322
Date Received : Oct 12, 2023
Date Reported : Oct 18, 2023
Report Number: 2806758-1

Page 1 of 1

Sample Number 23116322-11
Parameter Noise (Leq 24 hrs.)
Location N2 : ริมรั้วโครงการระยะที่ 2 ทางด้านทิศใต้ (GPS 47P 0743692, 1414836)
Measurement Date Oct 08 - Oct 09, 2023
Measurement by Mongkon Phalathip
Sound Level meter Serial No. 623394

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	55.9	76.1	51.2
12:00 PM - 01:00 PM	54.0	83.3	51.1
01:00 PM - 02:00 PM	52.9	77.3	50.6
02:00 PM - 03:00 PM	51.5	70.4	49.8
03:00 PM - 04:00 PM	52.5	72.2	45.2
04:00 PM - 05:00 PM	50.3	76.9	45.0
05:00 PM - 06:00 PM	51.8	77.4	45.6
06:00 PM - 07:00 PM	57.7	81.7	46.1
07:00 PM - 08:00 PM	61.5	96.6	44.0
08:00 PM - 09:00 PM	46.2	72.2	43.0
09:00 PM - 10:00 PM	45.0	56.4	42.9
10:00 PM - 11:00 PM	45.4	65.1	43.2
11:00 PM - 12:00 AM	46.6	58.9	43.5
12:00 AM - 01:00 AM	46.7	59.0	45.2
01:00 AM - 02:00 AM	46.6	57.0	45.1
02:00 AM - 03:00 AM	45.1	66.3	42.6
03:00 AM - 04:00 AM	43.1	51.9	42.6
04:00 AM - 05:00 AM	44.8	63.9	42.6
05:00 AM - 06:00 AM	50.8	74.1	43.2
06:00 AM - 07:00 AM	57.3	78.3	45.1
07:00 AM - 08:00 AM	55.7	89.1	47.2
08:00 AM - 09:00 AM	51.5	78.9	45.8
09:00 AM - 10:00 AM	53.3	90.3	45.5
10:00 AM - 11:00 AM	49.6	71.2	45.0

Leq Average 24 hrs. (dB(A)) 53.4
Lmax (dB(A)) 96.6
L90 (dB(A)) 45.1
Ldn (dB(A)) 57.5
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23116322

Date Received : Oct 12, 2023
Date Reported : Oct 18, 2023
Report Number: 2806759-1

Page 1 of 1

Sample Number 23116322-12
Parameter Noise (Leq 24 hrs.)
Location N2 : ร่มรั้วโครงการระยะที่ 2 ทางด้านทิศใต้ (GPS 47P 0743692, 1414836)
Measurement Date Oct 09 - Oct 10, 2023
Measurement by Mongkon Phalathip
Sound Level meter Serial No. 623394

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	49.8	72.3	45.0
12:00 PM - 01:00 PM	50.8	77.0	45.9
01:00 PM - 02:00 PM	50.4	78.9	46.0
02:00 PM - 03:00 PM	49.3	80.6	46.3
03:00 PM - 04:00 PM	51.4	69.5	46.8
04:00 PM - 05:00 PM	53.5	77.6	48.4
05:00 PM - 06:00 PM	55.1	78.3	47.2
06:00 PM - 07:00 PM	56.5	76.6	47.1
07:00 PM - 08:00 PM	49.1	69.4	45.2
08:00 PM - 09:00 PM	50.4	73.4	43.8
09:00 PM - 10:00 PM	50.1	75.2	43.2
10:00 PM - 11:00 PM	50.2	74.0	43.6
11:00 PM - 12:00 AM	46.8	65.2	44.0
12:00 AM - 01:00 AM	48.7	75.7	44.0
01:00 AM - 02:00 AM	46.0	65.0	44.6
02:00 AM - 03:00 AM	45.4	63.8	43.4
03:00 AM - 04:00 AM	44.9	71.4	41.4
04:00 AM - 05:00 AM	43.8	54.9	41.8
05:00 AM - 06:00 AM	49.8	74.6	43.4
06:00 AM - 07:00 AM	56.9	77.4	45.5
07:00 AM - 08:00 AM	52.2	74.6	46.0
08:00 AM - 09:00 AM	52.1	76.5	47.3
09:00 AM - 10:00 AM	50.6	74.2	47.3
10:00 AM - 11:00 AM	50.8	74.0	44.5

Leq Average 24 hrs. (dB(A)) 51.4
Lmax (dB(A)) 80.6
L90 (dB(A)) 45.0
Ldn (dB(A)) 56.9
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการ
โรงงาน พ.ศ. 2548

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23116322

Date Received : Oct 12, 2023

Date Reported : Oct 18, 2023

Report Number: 2806760-1

Page 1 of 1

Sample Number 23116322-13
Parameter Noise (Leq 24 hrs.)
Location N2 : รื่นริ้วโครงการระยะที่ 2 ทางด้านทิศใต้ (GPS 47P 0743692, 1414836)
Measurement Date Oct 10 - Oct 11, 2023
Measurement by Mongkon Phalathip
Sound Level meter Serial No. 623394

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	49.9	75.1	44.4
12:00 PM - 01:00 PM	49.4	76.4	46.3
01:00 PM - 02:00 PM	50.4	63.9	48.1
02:00 PM - 03:00 PM	51.2	70.8	48.2
03:00 PM - 04:00 PM	50.6	68.3	48.4
04:00 PM - 05:00 PM	50.8	77.1	45.4
05:00 PM - 06:00 PM	54.1	71.1	45.3
06:00 PM - 07:00 PM	53.8	76.4	47.1
07:00 PM - 08:00 PM	50.6	73.9	44.6
08:00 PM - 09:00 PM	48.9	72.6	43.2
09:00 PM - 10:00 PM	45.5	67.2	42.6
10:00 PM - 11:00 PM	45.1	61.2	42.1
11:00 PM - 12:00 AM	44.5	62.2	42.4
12:00 AM - 01:00 AM	45.0	61.5	42.1
01:00 AM - 02:00 AM	44.4	63.0	42.3
02:00 AM - 03:00 AM	42.7	58.9	41.7
03:00 AM - 04:00 AM	46.9	74.2	42.3
04:00 AM - 05:00 AM	45.2	70.6	42.7
05:00 AM - 06:00 AM	50.2	73.6	42.7
06:00 AM - 07:00 AM	57.5	82.6	44.8
07:00 AM - 08:00 AM	53.1	88.0	45.6
08:00 AM - 09:00 AM	50.6	71.6	47.1
09:00 AM - 10:00 AM	51.2	74.3	46.9
10:00 AM - 11:00 AM	52.5	76.7	47.7

Leq Average 24 hrs. (dB(A)) 50.8
Lmax (dB(A)) 88.0
L90 (dB(A)) 44.6
Ldn (dB(A)) 56.6
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report



TESTING
No.0042

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23116322
Date Received : Oct 12, 2023
Date Reported : Oct 18, 2023
Report Number: 2806761-1

Page 1 of 1

Sample Number 23116322-14
Parameter Noise (Leq 24 hrs.)
Location N2 : ริมรั้วโครงการระยะที่ 2 ทางด้านทิศใต้ (GPS 47P 0743692, 1414836)
Measurement Date Oct 11 - Oct 12, 2023
Measurement by Mongkon Phalathip
Sound Level meter Serial No. 623394

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	50.4	72.2	47.3
12:00 PM - 01:00 PM	51.8	75.6	48.3
01:00 PM - 02:00 PM	54.1	81.6	49.3
02:00 PM - 03:00 PM	52.5	74.9	49.4
03:00 PM - 04:00 PM	56.0	82.2	49.6
04:00 PM - 05:00 PM	54.8	76.8	49.4
05:00 PM - 06:00 PM	52.5	80.8	47.4
06:00 PM - 07:00 PM	56.5	77.9	45.4
07:00 PM - 08:00 PM	51.6	75.4	45.0
08:00 PM - 09:00 PM	49.9	70.0	44.6
09:00 PM - 10:00 PM	47.2	74.7	43.5
10:00 PM - 11:00 PM	46.4	62.9	43.4
11:00 PM - 12:00 AM	59.2	93.6	43.2
12:00 AM - 01:00 AM	48.3	75.1	42.8
01:00 AM - 02:00 AM	43.5	58.7	42.0
02:00 AM - 03:00 AM	42.9	55.3	41.6
03:00 AM - 04:00 AM	42.7	60.1	41.4
04:00 AM - 05:00 AM	45.4	72.3	42.1
05:00 AM - 06:00 AM	57.6	80.6	44.0
06:00 AM - 07:00 AM	57.8	80.7	47.4
07:00 AM - 08:00 AM	57.7	86.5	48.0
08:00 AM - 09:00 AM	52.0	77.1	46.3
09:00 AM - 10:00 AM	52.4	80.9	45.6
10:00 AM - 11:00 AM	51.0	77.4	44.3

Leq Average 24 hrs. (dB(A)) 53.7
Lmax (dB(A)) 93.6
L90 (dB(A)) 45.0
Ldn (dB(A)) 60.3
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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คุณภาพน้ำทิ้ง



Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

TESTING
No.0042
Lot ID: 2371999
Date Received : Jul 24, 2023
Date Reported : Jul 31, 2023
Report Number : 2692500-1

Page 1 of 1

Sample Number	2371999-1
Sampled Date	Jul 24, 2023 9:55 AM
Sample Description	Wastewater
Location	บ่อพักน้ำทิ้งของโครงการ (Final Pond)
Date Analysis Commenced	Jul 24, 2023
Condition of Sample	Contained in one BOD bottle, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
Oil & Grease *	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C *		-	-	8.0	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Temperature *	Degree C	-	-	28.7	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1710	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	20	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Narunat thammassaro ทะเบียนเลขที่ ว-323-จ-9477 , Samart Khumphlee ทะเบียนเลขที่ ว-204-จ-7830

Remark :

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

Technical Management

N. Banchongkit

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

TESTING
No.0009
Lot ID: 2371999
Date Received : Jul 24, 2023
Date Reported : Aug 02, 2023
Report Number : 2692500-2

Page 1 of 1

Sample Number	2371999-1
Sampled Date	Jul 24, 2023 9:55 AM
Sample Description	Wastewater
Location	บ่อดักน้ำทิ้งของโครงการ (Final Pond)
Date Analysis Commenced	Jul 24, 2023
Condition of Sample	Contained in one BOD bottle, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Calcium	mg/L	0.03	0.05	153	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Magnesium	mg/L	0.03	0.05	22.0	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
SAR *		-	0.10	6.22	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Sodium	mg/L	0.03	0.05	311	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Water Testing							
Dissolved Oxygen *	mg/L	-	0.1	7.9	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Flow rate *	m3/s	-	-	0.009	No Standard	Flow meter	Rayong
Nitrate as N *	mg/L	0.015	0.05	2.46	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Narunat thammasaro , Samart Khumphlee

Remark :

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Approved by

Sawitree N.

Sawitree Noisangiam
Manager

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Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

TESTING
No.0042
Lot ID: 2384585
Date Received : Aug 17, 2023
Date Reported : Aug 24, 2023
Report Number : 2722981-1

Page 1 of 1

Sample Number	2384585-1
Sampled Date	Aug 17, 2023 10:00 AM
Sample Description	Wastewater
Location	บ่อพักน้ำทิ้งของโครงการ (Final Pond)
Date Analysis Commenced	Aug 17, 2023
Condition of Sample	Contained in one amber glass bottle, one BOD bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
Oil & Grease *	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C *		-	-	7.8	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Residual Free Chlorine *	mg/L	-	0.1	0.1	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Temperature *	Degree C	-	-	30.1	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1770	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	33	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Narunat thammassaro ทะเบียนเลขที่ ว-323-จ-9477 , Panupong Manit ทะเบียนเลขที่ ว-204-จ-8600

Remark :

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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

N. Banchongkit

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

TESTING
No.0009
Lot ID: 2384585
Date Received : Aug 17, 2023
Date Reported : Aug 24, 2023
Report Number : 2722981-2

Page 1 of 1

Sample Number	2384585-1						
Sampled Date	Aug 17, 2023 10:00 AM						
Sample Description	Wastewater						
Location	บ่อพักน้ำทิ้งของโครงการ (Final Pond)						
Date Analysis Commenced	Aug 17, 2023						
Condition of Sample	Contained in one amber glass bottle, one BOD bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Calcium	mg/L	0.03	0.05	143	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Magnesium	mg/L	0.03	0.05	23.2	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
SAR *	-	-	0.10	8.19	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Sodium	mg/L	0.03	0.05	400	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Water Testing							
Dissolved Oxygen *	mg/L	-	0.1	6.4	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Flow rate *	m3/s	-	-	0.000	No Standard	Flow meter	Rayong
Nitrate as N *	mg/L	0.015	0.05	1.28	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Narunat thammasaro , Panupong Manit

Remark :

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Approved by

Sawitree N.

Sawitree Noisangiam
Manager

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Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

TESTING
No.0042
Lot ID: 2395414
Date Received : Sep 21, 2023
Date Reported : Sep 28, 2023
Report Number : 2745965-1

Page 1 of 1

Sample Number	2395414-1
Sampled Date	Sep 21, 2023 10:12 AM
Sample Description	Wastewater
Location	บ่อกักน้ำทิ้งของโครงการ (Final Pond)
Date Analysis Commenced	Sep 21, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
Oil & Grease *	mg/L	-	3	4	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C *		-	-	8.0	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Temperature *	Degree C	-	-	32.0	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1690	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	13	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ๖-323-๖-9460 , Panupong Manit ทะเบียนเลขที่ ๖-204-๖-8600

Remark :

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

Technical Management

N. Banongkit

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ๖-323-๖-9445

Approved by

D. Changchon

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ๖-323-๖-9442

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Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

TESTING
No.0009
Lot ID: 2395414
Date Received : Sep 21, 2023
Date Reported : Sep 29, 2023
Report Number : 2745965-2

Page 1 of 2

Sample Number 2395414-1
Sampled Date Sep 21, 2023 10:12 AM
Sample Description Wastewater
Location บ่อพักน้ำทิ้งของโครงการ (Final Pond)
Date Analysis Commenced Sep 21, 2023
Condition of Sample Contained in one BOD bottle, two glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Calcium	mg/L	0.03	0.05	117	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Magnesium	mg/L	0.03	0.05	21.0	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
SAR *		-	0.10	7.59	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Sodium	mg/L	0.03	0.05	339	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Volatile Organics Compounds							
Bromodichloromethane *	ug/L	0.2	0.5	Not Detected	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Bromoform *	ug/L	0.2	0.5	Not Detected	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Chloroform *	ug/L	0.2	0.5	Not Detected	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Dibromochloromethane *	ug/L	0.2	0.5	Not Detected	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Total Trihalomethanes *	ug/L	0.2	1	Not Detected	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok

Water Testing

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Approved by

Chanatt L.

Chanattagarn Imchom
Section Head

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Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120

P/O : PO-2302-0003

Project Name :

Project Location :

TESTING

No.0009

Lot ID: 2395414

Date Received : Sep 21, 2023

Date Reported : Sep 29, 2023

Report Number : 2745965-2

Page 2 of 2

Sample Number	2395414-1
Sampled Date	Sep 21, 2023 10:12 AM
Sample Description	Wastewater
Location	บ่อพักน้ำทิ้งของโครงการ (Final Pond)
Date Analysis Commenced	Sep 21, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Dissolved Oxygen *	mg/L	-	0.1	7.7	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Flow rate *	m3/s	-	-	0.000	No Standard	Flow meter	Rayong
Nitrate as N *	mg/L	0.015	0.05	5.02	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Tanasit Wongsachai , Panupong Mani

Remark :

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Approved by

Chanatt L.

Chanattagarn Imchom
Section Head

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Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

TESTING
No.0042
Lot ID: 23110692
Date Received : Oct 24, 2023
Date Reported : Oct 30, 2023
Report Number : 2784869-1

Page 1 of 1

Sample Number	23110692-1
Sampled Date	Oct 24, 2023 9:45 AM
Sample Description	Wastewater
Location	บ่อดักน้ำทิ้งของโครงการ (Final Pond)
Date Analysis Commenced	Oct 24, 2023
Condition of Sample	Contained in one amber glass bottle, three plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	2.7	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
Oil & Grease *	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C *		-	-	8.0	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Residual Free Chlorine *	mg/L	-	0.1	0.2	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Temperature *	Degree C	-	-	29.8	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1780	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	37	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Narunat thammassaro ทะเบียนเลขที่ ว-323-จ-9477 , Pattarapol Sawangjaitam ทะเบียนเลขที่ ว-204-จ-0002

Remark :

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Technical Management

N. Banchongkit

Narumon Banchongkit

Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120

P/O : PO-2302-0003

Project Name :

Project Location :

TESTING

No.0009

Lot ID: 23110692

Date Received : Oct 24, 2023

Date Reported : Oct 31, 2023

Report Number : 2784869-2

Page 1 of 1

Sample Number	23110692-1
Sampled Date	Oct 24, 2023 9:45 AM
Sample Description	Wastewater
Location	บ่อพักน้ำทิ้งของโครงการ (Final Pond)
Date Analysis Commenced	Oct 24, 2023
Condition of Sample	Contained in one amber glass bottle, three plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Calcium	mg/L	0.03	0.05	131	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Magnesium	mg/L	0.03	0.05	21.4	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
SAR *		-	0.10	7.26	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Sodium	mg/L	0.03	0.05	340	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Water Testing							
Dissolved Oxygen *	mg/L	-	0.1	5.1	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Flow rate *	m3/s	-	-	0.000	No Standard	Flow meter	Rayong
Nitrate as N *	mg/L	0.015	0.05	4.80	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Narunat thammasaro , Pattarapol Sawangjaitam

Remark :

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Approved by

Sawitree N.

Sawitree Noisangiam
Manager

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Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

TESTING
No.0042
Lot ID: 23123563
Date Received : Nov 10, 2023
Date Reported : Nov 17, 2023
Report Number : 2814617-1

Page 1 of 1

Sample Number	23123563-1						
Sampled Date	Nov 10, 2023 2:20 PM						
Sample Description	Wastewater						
Location	บ่อดักน้ำทิ้งของโครงการ (Final Pond)						
Date Analysis Commenced	Nov 10, 2023						
Condition of Sample	Contained in one BOD bottle, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
Oil & Grease *	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C *		-	-	7.6	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Temperature *	Degree C	-	-	31.0	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1590	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	22	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Paramet Sattayakun ทะเบียนเลขที่ ว-323-จ-9476 , Pattarapol Sawangjaitam ทะเบียนเลขที่ ว-204-จ-0002

Remark :

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Technical Management

N. Banchongkit

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120

P/O : PO-2302-0003

Project Name :

Project Location :

TESTING

No.0009

Lot ID: 23123563

Date Received : Nov 10, 2023

Date Reported : Nov 17, 2023

Report Number : 2814617-2

Page 1 of 1

Sample Number	23123563-1						
Sampled Date	Nov 10, 2023 2:20 PM						
Sample Description	Wastewater						
Location	บ่อกักน้ำทิ้งของโครงการ (Final Pond)						
Date Analysis Commenced	Nov 10, 2023						
Condition of Sample	Contained in one BOD bottle, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Calcium	mg/L	0.03	0.05	129	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Magnesium	mg/L	0.03	0.05	18.7	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
SAR *		-	0.10	6.95	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Sodium	mg/L	0.03	0.05	318	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Water Testing							
Dissolved Oxygen *	mg/L	-	0.1	7.5	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Flow rate *	m3/s	-	-	0.008	No Standard	Flow meter	Rayong
Nitrate as N *	mg/L	0.015	0.05	1.44	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Paramet Sattayakun , Pattarapol Sawangjaitam

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Approved by

Sawitree N.

Sawitree Noisangiam
Manager

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Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

TESTING
No.0042
Lot ID: 23132302
Date Received : Dec 13, 2023
Date Reported : Dec 21, 2023
Report Number : 2834055-1

Page 1 of 1

Sample Number	23132302-1						
Sampled Date	Dec 13, 2023 10:40 AM						
Sample Description	Wastewater						
Location	บ่อพักน้ำทิ้งของโครงการ (Final Pond)						
Date Analysis Commenced	Dec 13, 2023						
Condition of Sample	Contained in one BOD bottle, one amber glass bottle, two glass vials and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
Oil & Grease *	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C *		-	-	7.9	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Temperature *	Degree C	-	-	29.5	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1560	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	23	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

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

Remark :

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Technical Management

N. Banongkit

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

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222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

TESTING
No.0009
Lot ID: 23132302
Date Received : Dec 13, 2023
Date Reported : Dec 21, 2023
Report Number : 2834055-2

Page 1 of 2

Sample Number	23132302-1
Sampled Date	Dec 13, 2023 10:40 AM
Sample Description	Wastewater
Location	บ่อกักน้ำทิ้งของโครงการ (Final Pond)
Date Analysis Commenced	Dec 13, 2023
Condition of Sample	Contained in one BOD bottle, one amber glass bottle, two glass vials and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Calcium	mg/L	0.03	0.05	129	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Magnesium	mg/L	0.03	0.05	21.2	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
SAR *		-	0.10	6.18	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Sodium	mg/L	0.03	0.05	288	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Volatile Organics Compounds							
Bromodichloromethane *	ug/L	0.2	0.5	Not Detected	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Bromoform *	ug/L	0.2	0.5	Not Detected	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Chloroform *	ug/L	0.2	0.5	Not Detected	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Dibromochloromethane *	ug/L	0.2	0.5	Not Detected	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Total Trihalomethanes *	ug/L	0.2	1	Not Detected	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok

Water Testing

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

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Nant Somb

Nanthawadee Somboon
Specialist 1

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Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

TESTING
No.0009
Lot ID: 23132302
Date Received : Dec 13, 2023
Date Reported : Dec 21, 2023
Report Number : 2834055-2

Page 2 of 2

Sample Number	23132302-1
Sampled Date	Dec 13, 2023 10:40 AM
Sample Description	Wastewater
Location	บ่อดักน้ำทิ้งของโครงการ (Final Pond)
Date Analysis Commenced	Dec 13, 2023
Condition of Sample	Contained in one BOD bottle, one amber glass bottle, two glass vials and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Dissolved Oxygen *	mg/L	-	0.1	7.8	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Flow rate *	m3/s	-	-	0.008	No Standard	Flow meter	Rayong
Nitrate as N *	mg/L	0.015	0.05	2.65	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Sansoen Khuiyoksui

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
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Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120

P/O : PO-2302-0003

Project Name :

Project Location :

TESTING

No.0042

Lot ID: 2395417

Date Received : Sep 21, 2023

Date Reported : Sep 29, 2023

Report Number : 2745966-1

Page 1 of 6

Sample Number	2395417-1
Sampled Date	Sep 21, 2023 10:50 AM
Sample Description	Surface Water
Location	SW1 : ก่อนไหลผ่านจุดระบายน้ำทั้ง 1,000 เมตร
Date Analysis Commenced	Sep 21, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, one amber glass bottle and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Volatile Organics Compounds								
Bromodichloromethane *	ug/L	0.2	0.5	Not Detected	No Standard	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Bromoform *	ug/L	0.2	0.5	Not Detected	No Standard	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Chloroform *	ug/L	0.2	0.5	Not Detected	No Standard	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Dibromochloromethane *	ug/L	0.2	0.5	Not Detected	No Standard	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Total Trihalomethanes *	ug/L	0.2	1	Not Detected	No Standard	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Water Testing								
BOD *	mg/L	-	2	<2.0	≤2	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O C	Rayong
Dissolved Oxygen *	mg/L	-	0.1	6.5	≥4	≥2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Flow rate *	m3/s	-	-	0.114	No Standard	No Standard	Flow meter	Rayong
Nitrate as N *	mg/L	0.015	0.05	0.67	≤5	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong

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N. Banngkit

Narumon Banchongkit
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Analysis / Test Report

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222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

TESTING
No.0042
Lot ID: 2395417
Date Received : Sep 21, 2023
Date Reported : Sep 29, 2023
Report Number : 2745966-1

Page 2 of 6

Sample Number	2395417-1							
Sampled Date	Sep 21, 2023 10:50 AM							
Sample Description	Surface Water							
Location	SW1 : ก่อนไหลผ่านจุดระบายน้ำทั้ง 1,000 เมตร							
Date Analysis Commenced	Sep 21, 2023							
Condition of Sample	Contained in one BOD bottle, two glass vials, one amber glass bottle and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing								
pH at 25 degree C		-	-	7.0	5.0-9.0	5.0-9.0	In-house method : STM 02-005 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	30.2	(c)	(c)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	110	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	55	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : (1) Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 3)
(2) Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)
(a) Not Change from natural condition
(b) Non Objectionable
(c) Change from Natural condition not more than 3 degree C

Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ร-323-จ-9460 , Panupong Manit ทะเบียนเลขที่ ร-204-จ-8600

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
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222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

TESTING
No.0042
Lot ID: 2395417
Date Received : Sep 21, 2023
Date Reported : Sep 29, 2023
Report Number : 2745966-1

Page 3 of 6

Sample Number	2395417-2							
Sampled Date	Sep 21, 2023 11:20 AM							
Sample Description	Surface Water							
Location	SW3 : หลังไหลผ่านจุดระบายน้ำทั้ง 1,000 เมตร							
Date Analysis Commenced	Sep 21, 2023							
Condition of Sample	Contained in one BOD bottle, two glass vials, one amber glass bottle and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Volatile Organics Compounds								
Bromodichloromethane *	ug/L	0.2	0.5	Not Detected	No Standard	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Bromoform *	ug/L	0.2	0.5	Not Detected	No Standard	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Chloroform *	ug/L	0.2	0.5	Not Detected	No Standard	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Dibromochloromethane *	ug/L	0.2	0.5	Not Detected	No Standard	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Total Trihalomethanes *	ug/L	0.2	1	Not Detected	No Standard	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Water Testing								
BOD *	mg/L	-	2	<2.0	≤2	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O C	Rayong
Dissolved Oxygen *	mg/L	-	0.1	6.9	≥4	≥2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Flow rate *	m3/s	-	-	1.920	No Standard	No Standard	Flow meter	Rayong
Nitrate as N *	mg/L	0.015	0.05	0.75	≤5	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong

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Analysis / Test Report

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222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

TESTING
No.0042
Lot ID: 2395417
Date Received : Sep 21, 2023
Date Reported : Sep 29, 2023
Report Number : 2745966-1

Page 4 of 6

Sample Number	2395417-2							
Sampled Date	Sep 21, 2023 11:20 AM							
Sample Description	Surface Water							
Location	SW3 : หลังไหลผ่านจุดระบายน้ำทั้ง 1,000 เมตร							
Date Analysis Commenced	Sep 21, 2023							
Condition of Sample	Contained in one BOD bottle, two glass vials, one amber glass bottle and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing								
pH at 25 degree C		-	-	7.3	5.0-9.0	5.0-9.0	In-house method : STM 02-005 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	30.5	(c)	(c)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	170	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	94	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : (1) Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 3)
(2) Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)
(a) Not Change from natural condition
(b) Non Objectionable
(c) Change from Natural condition not more than 3 degree C

Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ๖-323-๖-9460 , Panupong Maniit ทะเบียนเลขที่ ๖-204-๖-8600

Remark :

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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120

P/O : PO-2302-0003

Project Name :

Project Location :

TESTING

No.0042

Lot ID: 2395417

Date Received : Sep 21, 2023

Date Reported : Sep 29, 2023

Report Number : 2745966-1

Page 5 of 6

Page 5 of 6

Sample Number	2395417-3							
Sampled Date	Sep 21, 2023 11:05 AM							
Sample Description	Surface Water							
Location	SW2 : บริเวณจุดระบายน้ำทิ้ง							
Date Analysis Commenced	Sep 21, 2023							
Condition of Sample	Contained in one BOD bottle, one amber glass bottle and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing								
BOD *	mg/L	-	2	<2.0	≤2	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O C	Rayong
Dissolved Oxygen *	mg/L	-	0.1	6.5	≥4	≥2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Flow rate *	m3/s	-	-	0.503	No Standard	No Standard	Flow meter	Rayong
Nitrate as N *	mg/L	0.015	0.05	0.84	≤5	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	7.2	5.0-9.0	5.0-9.0	In-house method : STM 02-005 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	30.3	(c)	(c)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	278	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	109	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

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Analysis / Test Report

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222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

TESTING
No.0042
Lot ID: 2395417
Date Received : Sep 21, 2023
Date Reported : Sep 29, 2023
Report Number : 2745966-1

Page 6 of 6

Guideline : (1) Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 3)
(2) Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)
(a) Not Change from natural condition
(b) Non Objectionable
(c) Change from Natural condition not more than 3 degree C

Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ๖-323-๖-9460 , Panupong Manit ทะเบียนเลขที่ ๖-204-๖-8600

Remark :

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

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P/O : PO-2302-0003

Project Name :

Project Location :

TESTING

No.0042

Lot ID: 23132310

Date Received : Dec 13, 2023

Date Reported : Dec 22, 2023

Report Number : 2834058-1

Page 1 of 6

Sample Number	23132310-1							
Sampled Date	Dec 13, 2023 1:50 PM							
Sample Description	Surface Water							
Location	SW1 : ก่อนไหลผ่านจุดระบายน้ำทั้ง 1,000 เมตร							
Date Analysis Commenced	Dec 13, 2023							
Condition of Sample	Contained in one amber glass bottle, one BOD bottle, two glass vials and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Volatile Organics Compounds								
Bromodichloromethane *	ug/L	0.2	0.5	Not Detected	No Standard	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Bromoform *	ug/L	0.2	0.5	Not Detected	No Standard	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Chloroform *	ug/L	0.2	0.5	Not Detected	No Standard	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Dibromochloromethane *	ug/L	0.2	0.5	Not Detected	No Standard	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Total Trihalomethanes *	ug/L	0.2	1	Not Detected	No Standard	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Water Testing								
BOD *	mg/L	-	2	<2.0	≤2	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O C	Rayong
Dissolved Oxygen *	mg/L	-	0.1	6.5	≥4	≥2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Flow rate *	m3/s	-	-	0.253	No Standard	No Standard	Flow meter	Rayong
Nitrate as N *	mg/L	0.015	0.05	0.76	≤5	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong

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N. Banchongkit

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Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

TESTING
No.0042
Lot ID: 23132310
Date Received : Dec 13, 2023
Date Reported : Dec 22, 2023
Report Number : 2834058-1

Page 2 of 6

Sample Number	23132310-1							
Sampled Date	Dec 13, 2023 1:50 PM							
Sample Description	Surface Water							
Location	SW1 : ก่อนไหลผ่านจุดระบายน้ำทั้ง 1,000 เมตร							
Date Analysis Commenced	Dec 13, 2023							
Condition of Sample	Contained in one amber glass bottle, one BOD bottle, two glass vials and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing								
Oil & Grease *	mg/L	-	3	<3	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	7.5	5.0-9.0	5.0-9.0	In-house method : STM 02-005 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	29.9	(c)	(c)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	95	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	7	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : (1) Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 3)
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(a) Not Change from natural condition
(b) Non Objectionable
(c) Change from Natural condition not more than 3 degree C

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

Remark :

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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

TESTING
No.0042
Lot ID: 23132310
Date Received : Dec 13, 2023
Date Reported : Dec 22, 2023
Report Number : 2834058-1

Page 3 of 6

Sample Number	23132310-2							
Sampled Date	Dec 13, 2023 2:40 PM							
Sample Description	Surface Water							
Location	SW3 : หลังไหลผ่านจุดระบายน้ำทั้ง 1,000 เมตร							
Date Analysis Commenced	Dec 13, 2023							
Condition of Sample	Contained in one amber glass bottle, one BOD bottle, two glass vials and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Volatile Organics Compounds								
Bromodichloromethane *	ug/L	0.2	0.5	Not Detected	No Standard	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Bromoform *	ug/L	0.2	0.5	Not Detected	No Standard	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Chloroform *	ug/L	0.2	0.5	Not Detected	No Standard	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Dibromochloromethane *	ug/L	0.2	0.5	Not Detected	No Standard	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Total Trihalomethanes *	ug/L	0.2	1	Not Detected	No Standard	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Water Testing								
BOD *	mg/L	-	2	<2.0	≤2	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O C	Rayong
Dissolved Oxygen *	mg/L	-	0.1	6.8	≥4	≥2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Flow rate *	m3/s	-	-	0.105	No Standard	No Standard	Flow meter	Rayong
Nitrate as N *	mg/L	0.015	0.05	0.64	≤5	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong

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222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

TESTING
No.0042
Lot ID: 23132310
Date Received : Dec 13, 2023
Date Reported : Dec 22, 2023
Report Number : 2834058-1

Page 4 of 6

Sample Number	23132310-2							
Sampled Date	Dec 13, 2023 2:40 PM							
Sample Description	Surface Water							
Location	SW3 : หลังไหลผ่านจุดระบายน้ำทั้ง 1,000 เมตร							
Date Analysis Commenced	Dec 13, 2023							
Condition of Sample	Contained in one amber glass bottle, one BOD bottle, two glass vials and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing								
Oil & Grease *	mg/L	-	3	<3	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	7.5	5.0-9.0	5.0-9.0	In-house method : STM 02-005 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	31.2	(c)	(c)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	308	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	18	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : (1) Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 3)
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(a) Not Change from natural condition
(b) Non Objectionable
(c) Change from Natural condition not more than 3 degree C

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

Remark :

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P/O : PO-2302-0003
Project Name :
Project Location :

TESTING
No.0042
Lot ID: 23132310
Date Received : Dec 13, 2023
Date Reported : Dec 22, 2023
Report Number : 2834058-1

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Sample Number	23132310-3							
Sampled Date	Dec 13, 2023 2:10 PM							
Sample Description	Surface Water							
Location	SW2 : บริเวณจุดระบายน้ำทิ้ง							
Date Analysis Commenced	Dec 13, 2023							
Condition of Sample	Contained in one amber glass bottle, one BOD bottle and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing								
BOD *	mg/L	-	2	<2.0	≤2	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O C	Rayong
Dissolved Oxygen *	mg/L	-	0.1	6.9	≥4	≥2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Flow rate *	m3/s	-	-	0.217	No Standard	No Standard	Flow meter	Rayong
Nitrate as N *	mg/L	0.015	0.05	0.78	≤5	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NO3 (E)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	7.3	5.0-9.0	5.0-9.0	In-house method : STM 02-005 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	31.4	(c)	(c)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	440	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	20	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

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P/O : PO-2302-0003
Project Name :
Project Location :

TESTING
No.0042
Lot ID: 23132310
Date Received : Dec 13, 2023
Date Reported : Dec 22, 2023
Report Number : 2834058-1

Page 6 of 6

Guideline : (1) Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 3)
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(a) Not Change from natural condition
(b) Non Objectionable
(c) Change from Natural condition not more than 3 degree C

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

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222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23123567
Date Received : Nov 21, 2023
Date Reported : Nov 25, 2023
Report Number : 2814619-1

Page 1 of 3

Sample Number	23123567-1
Sampled Date	Nov 21, 2023 3:40 PM
Sample Description	Ground Water
Location	GW1 : บริเวณเริ่มถนนของสวนอุตสาหกรรมฯ ทางทิศตะวันตกเฉียงเหนือของโครงการ
Date Analysis Commenced	Nov 21, 2023
Condition of Sample	Contained in one plastic bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Conductivity at 25 Degree C	micromhos/cm	-	0.5	1385	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2510 B	Rayong
pH at 25 degree C		-	-	6.4	6.5-9.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	856	≤1200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	123	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong
Water Level	m	-	-	5.10	No Standard	Water Level Meter	Bangkok

Guideline : Groundwater Quality Standards for Drinking Purposes set by Notification of Ministry of Natural Resources and Environment B.E. 2551, Maximum allowable.

Sampling By : Narunat thammasaro , Samart Khumphlee

Remark :

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P/O : PO-2302-0003
Project Name :
Project Location:

Lot ID: 23123567

Date Received : Nov 21, 2023
Date Reported : Nov 25, 2023
Report Number : 2814619-1

Page 2 of 3

Sample Number 23123567-2
Sampled Date Nov 21, 2023 3:00 PM
Sample Description Ground Water
Location GW5 : ริมรั้วโครงการระยะที่ 2 ทางทิศใต้
Date Analysis Commenced Nov 21, 2023
Condition of Sample Contained in one plastic bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Conductivity at 25 Degree C	micromhos/cm	-	0.5	251	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2510 B	Rayong
pH at 25 degree C		-	-	4.6	6.5-9.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	154	≤1200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	351	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong
Water Level	m	-	-	0.30	No Standard	Water Level Meter	Bangkok

Guideline : Groundwater Quality Standards for Drinking Purposes set by Notification of Ministry of Natural Resources and Environment B.E. 2551, Maximum allowable.

Sampling By : Narunat thammasaro , Samart Khumphlee

Remark :

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P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23123567

Date Received : Nov 21, 2023
Date Reported : Nov 25, 2023
Report Number : 2814619-1

Page 3 of 3

Sample Number 23123567-3
Sampled Date Nov 21, 2023 2:30 PM
Sample Description Ground Water
Location GW6 : ร่มรั้วโครงการระยะที่ 2 ทางทิศตะวันออก
Date Analysis Commenced Nov 21, 2023
Condition of Sample Contained in one plastic bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Conductivity at 25 Degree C	micromhos/cm	-	0.5	78.1	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2510 B	Rayong
pH at 25 degree C		-	-	4.2	6.5-9.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	51	≤1200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	224	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong
Water Level	m	-	-	3.05	No Standard	Water Level Meter	Bangkok

Guideline : Groundwater Quality Standards for Drinking Purposes set by Notification of Ministry of Natural Resources and Environment B.E. 2551, Maximum allowable.

Sampling By : Narunat thammasaro , Samart Khumphlee

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Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120

P/O : PO-2302-0003

Project Name :

Project Location :

Lot ID: 23108170

Date Received : Sep 21, 2023

Date Reported : Sep 27, 2023

Report Number: 2789593-1

Page 1 of 1

Sample Number 23108170-1
Parameter Noise (Leq 8 hrs.)
Location Gas Turbine Generator
Measurement Date Sep 20, 2023
Measurement by Suphachai Wongsurichai

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:09 AM - 10:09 AM	79.7	80.6	79.5
10:09 AM - 11:09 AM	79.6	80.2	79.5
11:09 AM - 12:09 PM	79.6	80.3	79.4
12:09 PM - 01:09 PM	79.4	80.1	79.2
01:09 PM - 02:09 PM	79.3	80.2	79.1
02:09 PM - 03:09 PM	81.2	96.7	79.7
03:09 PM - 04:09 PM	80.5	82.7	80.1
04:09 PM - 05:09 PM	80.2	81.1	80.0

Leq Average 8 hrs. (dB(A))

80.0

Lmax (dB(A))

96.7

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23108170

Date Received : Sep 21, 2023
Date Reported : Sep 27, 2023
Report Number: 2789594-1

Page 1 of 1

Sample Number 23108170-2
Parameter Noise (Leq 8 hrs.)
Location Air Compressor
Measurement Date Sep 20, 2023
Measurement by Suphachai Wongsurichai

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:05 AM - 10:05 AM	74.0	84.0	72.5
10:05 AM - 11:05 AM	75.1	92.6	72.6
11:05 AM - 12:05 PM	74.8	93.0	64.4
12:05 PM - 01:05 PM	74.2	85.0	64.2
01:05 PM - 02:05 PM	75.1	91.8	72.3
02:05 PM - 03:05 PM	81.9	96.3	74.3
03:05 PM - 04:05 PM	77.4	86.0	73.3
04:05 PM - 05:05 PM	74.9	83.5	70.8

Leq Average 8 hrs. (dB(A))

76.8

Lmax (dB(A))

96.3

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรฐานคุ้มครองความปลอดภัย
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Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23108170

Date Received : Sep 21, 2023

Date Reported : Sep 27, 2023

Report Number: 2789595-1

Page 1 of 1

Sample Number 23108170-3
Parameter Noise (Leq 8 hrs.)
Location Steam Turbine Generator
Measurement Date Sep 20, 2023
Measurement by Suphachai Wongsurichai

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:12 AM - 10:12 AM	78.6	84.2	77.1
10:12 AM - 11:12 AM	77.7	81.8	76.1
11:12 AM - 12:12 PM	77.2	81.5	75.8
12:12 PM - 01:12 PM	76.2	82.2	75.3
01:12 PM - 02:12 PM	76.5	83.7	75.2
02:12 PM - 03:12 PM	77.1	87.9	76.0
03:12 PM - 04:12 PM	77.0	82.3	76.0
04:12 PM - 05:12 PM	76.9	87.7	75.8

Leq Average 8 hrs. (dB(A))

77.2

Lmax (dB(A))

87.9

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรฐานการคุ้มครองความปลอดภัย
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Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.

222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120

P/O : PO-2302-0003

Project Name :

Project Location :

Lot ID: 23132617

Date Received : Dec 14, 2023

Date Reported : Dec 19, 2023

Report Number: 2864793-1

Page 1 of 1

Sample Number 23132617-1
Parameter Noise (Leq 8 hrs.)
Location Gas Turbine Generator
Measurement Date Dec 14, 2023
Measurement by Santi Chaichana

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:50 AM - 09:50 AM	80.0	82.4	79.4
09:50 AM - 10:50 AM	79.6	82.4	79.1
10:50 AM - 11:50 AM	79.6	82.8	79.0
11:50 AM - 12:50 PM	79.6	83.3	79.0
12:50 PM - 01:50 PM	79.6	82.1	79.1
01:50 PM - 02:50 PM	79.7	80.2	79.5
02:50 PM - 03:50 PM	79.9	80.5	79.8
03:50 PM - 04:50 PM	80.0	81.9	79.8

Leq Average 8 hrs. (dB(A))

79.8

Lmax (dB(A))

83.3

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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Technical Management

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18309-21/ EMAIL

S:\Reports\Air Noise.rpt (2:46PM)



Analysis / Test Report

Client : Ratch Energy Rayong Co., Ltd.
222 Moo 5, Tambon Nong Lalok, Amphoe Ban Khai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23132617
Date Received : Dec 14, 2023
Date Reported : Dec 19, 2023
Report Number: 2864794-1

Page 1 of 1

Sample Number 23132617-2
Parameter Noise (Leq 8 hrs.)
Location Air Compressor
Measurement Date Dec 14, 2023
Measurement by Santi Chaichana

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:04 AM - 10:04 AM	73.1	83.0	72.0
10:04 AM - 11:04 AM	72.4	80.4	63.3
11:04 AM - 12:04 PM	73.6	91.8	71.6
12:04 PM - 01:04 PM	73.0	91.4	71.4
01:04 PM - 02:04 PM	72.7	81.4	69.8
02:04 PM - 03:04 PM	72.6	81.7	71.5
03:04 PM - 04:04 PM	73.8	92.3	71.2
04:04 PM - 05:04 PM	72.9	90.0	64.1

Leq Average 8 hrs. (dB(A))

73.0

Lmax (dB(A))

92.3

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 23132617

Date Received : Dec 14, 2023
Date Reported : Dec 19, 2023
Report Number: 2864795-1

Page 1 of 1

Sample Number 23132617-3
Parameter Noise (Leq 8 hrs.)
Location Steam Turbine Generator
Measurement Date Dec 14, 2023
Measurement by Santi Chaichana

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:57 AM - 09:57 AM	83.1	84.8	82.4
09:57 AM - 10:57 AM	83.1	84.7	82.6
10:57 AM - 11:57 AM	82.9	84.6	82.2
11:57 AM - 12:57 PM	83.0	84.9	82.2
12:57 PM - 01:57 PM	79.2	84.6	74.8
01:57 PM - 02:57 PM	75.4	78.0	74.4
02:57 PM - 03:57 PM	76.8	79.2	75.5
03:57 PM - 04:57 PM	76.4	78.9	75.1

Leq Average 8 hrs. (dB(A))

81.0

Lmax (dB(A))

84.9

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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ภาคผนวก ค-2

การตรวจวัดคุณภาพอากาศจากปล่องระบายอากาศ
แบบต่อเนื่อง

ผลการตรวจวัดคุณภาพอากาศ
จากปล่องระบายอากาศแบบต่อเนื่อง
ระหว่างเดือนกรกฎาคม-ธันวาคม พ.ศ. 2566

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
01/07/2023 00:00	26.44	13.69
01/07/2023 01:00	26.85	13.7
01/07/2023 02:00	27.64	13.71
01/07/2023 03:00	27.62	13.71
01/07/2023 04:00	28.05	13.71
01/07/2023 05:00	28.18	13.71
01/07/2023 06:00	27.99	13.71
01/07/2023 07:00	29.3	13.7
01/07/2023 08:00	46.24	12.79
01/07/2023 09:00	46.41	12.74
01/07/2023 10:00	46.4	12.74
01/07/2023 11:00	46.84	12.72
01/07/2023 12:00	46.9	12.7
01/07/2023 13:00	46.55	12.7
01/07/2023 14:00	46.44	12.72
01/07/2023 15:00	46.75	12.71
01/07/2023 16:00	46.85	12.72
01/07/2023 17:00	46.9	12.72
01/07/2023 18:00	46.9	12.73
01/07/2023 19:00	46.86	12.73
01/07/2023 20:00	46.74	12.75
01/07/2023 21:00	46.56	12.75
01/07/2023 22:00	46.79	12.76
01/07/2023 23:00	38.71	13.28
02/07/2023 00:00	26.79	13.69
02/07/2023 01:00	27.22	13.71
02/07/2023 02:00	27.67	13.74
02/07/2023 03:00	27.92	13.74
02/07/2023 04:00	27.89	13.74
02/07/2023 05:00	28.02	13.74
02/07/2023 06:00	28.05	13.75
02/07/2023 07:00	27.86	13.74
02/07/2023 08:00	28.04	13.74
02/07/2023 09:00	28.34	13.75

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
02/07/2023 10:00	28.17	13.75
02/07/2023 11:00	28.36	13.76
02/07/2023 12:00	28.08	13.76
02/07/2023 13:00	27.93	13.76
02/07/2023 14:00	27.88	13.77
02/07/2023 15:00	27.59	13.77
02/07/2023 16:00	27.7	13.78
02/07/2023 17:00	29.3	13.72
02/07/2023 18:00	46.03	12.79
02/07/2023 19:00	46.49	12.79
02/07/2023 20:00	47.09	12.81
02/07/2023 21:00	47.03	12.81
02/07/2023 22:00	47.18	12.86
02/07/2023 23:00	29.03	13.71
03/07/2023 00:00	27.45	13.7
03/07/2023 01:00	27.89	13.72
03/07/2023 02:00	28.07	13.73
03/07/2023 03:00	28.03	13.74
03/07/2023 04:00	28.17	13.74
03/07/2023 05:00	28.02	13.74
03/07/2023 06:00	27.99	13.75
03/07/2023 07:00	29.8	13.68
03/07/2023 08:00	45.9	12.76
03/07/2023 09:00	45.67	12.76
03/07/2023 10:00	45.25	12.77
03/07/2023 11:00	45.54	12.76
03/07/2023 12:00	46.1	12.74
03/07/2023 13:00	46.54	12.73
03/07/2023 14:00	46.39	12.75
03/07/2023 15:00	46.32	12.76
03/07/2023 16:00	46.46	12.76
03/07/2023 17:00	46.33	12.77
03/07/2023 18:00	45.91	12.8
03/07/2023 19:00	45.59	12.81

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
03/07/2023 20:00	45.43	12.82
03/07/2023 21:00	45.19	12.81
03/07/2023 22:00	45.09	12.8
03/07/2023 23:00	38.36	13.28
04/07/2023 00:00	27.56	13.7
04/07/2023 01:00	27.63	13.7
04/07/2023 02:00	27.5	13.69
04/07/2023 03:00	27.56	13.69
04/07/2023 04:00	27.59	13.7
04/07/2023 05:00	27.64	13.7
04/07/2023 06:00	27.67	13.69
04/07/2023 07:00	29.19	13.64
04/07/2023 08:00	46.09	12.74
04/07/2023 09:00	45.9	12.75
04/07/2023 10:00	45.7	12.75
04/07/2023 11:00	45.74	12.76
04/07/2023 12:00	45.89	12.75
04/07/2023 13:00	45.81	12.75
04/07/2023 14:00	45.68	12.76
04/07/2023 15:00	45.86	12.76
04/07/2023 16:00	46.26	12.75
04/07/2023 17:00	46.26	12.78
04/07/2023 18:00	45.99	12.8
04/07/2023 19:00	45.71	12.81
04/07/2023 20:00	45.61	12.8
04/07/2023 21:00	45.42	12.81
04/07/2023 22:00	45.28	12.8
04/07/2023 23:00	38.43	13.28
05/07/2023 00:00	27.08	13.69
05/07/2023 01:00	27.15	13.7
05/07/2023 02:00	26.99	13.7
05/07/2023 03:00	27.27	13.69
05/07/2023 04:00	27.27	13.7
05/07/2023 05:00	27.41	13.7

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
05/07/2023 06:00	27.37	13.7
05/07/2023 07:00	29.04	13.64
05/07/2023 08:00	46.17	12.74
05/07/2023 09:00	46.32	12.73
05/07/2023 10:00	46	12.72
05/07/2023 11:00	45.86	12.72
05/07/2023 12:00	46.02	12.73
05/07/2023 13:00	46.12	12.74
05/07/2023 14:00	46.43	12.76
05/07/2023 15:00	46.46	12.73
05/07/2023 16:00	46.67	12.75
05/07/2023 17:00	47.19	12.8
05/07/2023 18:00	46.53	12.81
05/07/2023 19:00	46.33	12.81
05/07/2023 20:00	45.85	12.81
05/07/2023 21:00	45.44	12.8
05/07/2023 22:00	45.19	12.8
05/07/2023 23:00	38.23	13.3
06/07/2023 00:00	27.47	13.7
06/07/2023 01:00	27.61	13.7
06/07/2023 02:00	27.53	13.7
06/07/2023 03:00	27.68	13.7
06/07/2023 04:00	27.66	13.71
06/07/2023 05:00	28.13	13.73
06/07/2023 06:00	28.37	13.74
06/07/2023 07:00	30.11	13.75
06/07/2023 08:00	45.2	12.81
06/07/2023 09:00	45.08	12.75
06/07/2023 10:00	44.88	12.76
06/07/2023 11:00	45.08	12.75
06/07/2023 12:00	45.55	12.72
06/07/2023 13:00	46.42	12.73
06/07/2023 14:00	46.55	12.73
06/07/2023 15:00	46.78	12.73

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
06/07/2023 16:00	46.98	12.75
06/07/2023 17:00	47.36	12.77
06/07/2023 18:00	47.05	12.79
06/07/2023 19:00	46.88	12.81
06/07/2023 20:00	46.5	12.81
06/07/2023 21:00	45.91	12.82
06/07/2023 22:00	45.6	12.81
06/07/2023 23:00	38.37	13.28
07/07/2023 00:00	26.75	13.69
07/07/2023 01:00	26.97	13.7
07/07/2023 02:00	27.05	13.7
07/07/2023 03:00	27.23	13.7
07/07/2023 04:00	27.23	13.71
07/07/2023 05:00	27.67	13.73
07/07/2023 06:00	27.47	13.71
07/07/2023 07:00	29.08	13.63
07/07/2023 08:00	46.21	12.72
07/07/2023 09:00	46.54	12.71
07/07/2023 10:00	46.24	12.7
07/07/2023 11:00	46.22	12.69
07/07/2023 12:00	46.13	12.7
07/07/2023 13:00	46.25	12.68
07/07/2023 14:00	46.3	12.75
07/07/2023 15:00	46.04	12.81
07/07/2023 16:00	46.64	12.77
07/07/2023 17:00	46.76	12.75
07/07/2023 18:00	46.58	12.75
07/07/2023 19:00	46.46	12.75
07/07/2023 20:00	46.42	12.75
07/07/2023 21:00	46.1	12.76
07/07/2023 22:00	45.6	12.76
07/07/2023 23:00	38.12	13.25
08/07/2023 00:00	26.55	13.67
08/07/2023 01:00	26.65	13.68

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
08/07/2023 02:00	26.56	13.69
08/07/2023 03:00	26.83	13.69
08/07/2023 04:00	27.05	13.7
08/07/2023 05:00	27.74	13.71
08/07/2023 06:00	27.88	13.72
08/07/2023 07:00	29.76	13.62
08/07/2023 08:00	45.78	12.81
08/07/2023 09:00	46.29	12.79
08/07/2023 10:00	46.19	12.78
08/07/2023 11:00	46.24	12.76
08/07/2023 12:00	46.12	12.74
08/07/2023 13:00	46.19	12.8
08/07/2023 14:00	46.25	12.81
08/07/2023 15:00	46.5	12.78
08/07/2023 16:00	46.36	12.76
08/07/2023 17:00	46.38	12.75
08/07/2023 18:00	46.35	12.75
08/07/2023 19:00	46.17	12.77
08/07/2023 20:00	45.87	12.78
08/07/2023 21:00	45.57	12.79
08/07/2023 22:00	45.37	12.79
08/07/2023 23:00	38.34	13.26
09/07/2023 00:00	26.69	13.67
09/07/2023 01:00	26.75	13.67
09/07/2023 02:00	26.67	13.67
09/07/2023 03:00	26.7	13.67
09/07/2023 04:00	27.14	13.69
09/07/2023 05:00	27.22	13.69
09/07/2023 06:00	27.14	13.7
09/07/2023 07:00	26.6	13.68
09/07/2023 08:00	26.57	13.68
09/07/2023 09:00	26.37	13.68
09/07/2023 10:00	26.45	13.69
09/07/2023 11:00	27.12	13.71

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
09/07/2023 12:00	26.55	13.7
09/07/2023 13:00	27.44	13.71
09/07/2023 14:00	27.16	13.7
09/07/2023 15:00	26.99	13.68
09/07/2023 16:00	27.1	13.69
09/07/2023 17:00	28.86	13.65
09/07/2023 18:00	45.33	12.79
09/07/2023 19:00	45.15	12.79
09/07/2023 20:00	44.9	12.79
09/07/2023 21:00	44.94	12.8
09/07/2023 22:00	45.35	12.84
09/07/2023 23:00	28.69	13.69
10/07/2023 00:00	26.8	13.67
10/07/2023 01:00	26.93	13.67
10/07/2023 02:00	26.95	13.67
10/07/2023 03:00	26.97	13.67
10/07/2023 04:00	27.14	13.68
10/07/2023 05:00	27.2	13.69
10/07/2023 06:00	27.15	13.69
10/07/2023 07:00	28.98	13.64
10/07/2023 08:00	45.52	12.8
10/07/2023 09:00	45.25	12.81
10/07/2023 10:00	44.56	12.83
10/07/2023 11:00	45.12	12.81
10/07/2023 12:00	45.73	12.79
10/07/2023 13:00	46.13	12.78
10/07/2023 14:00	46.1	12.76
10/07/2023 15:00	45.92	12.75
10/07/2023 16:00	45.96	12.75
10/07/2023 17:00	46.18	12.79
10/07/2023 18:00	46.33	12.81
10/07/2023 19:00	46.15	12.83
10/07/2023 20:00	45.96	12.83
10/07/2023 21:00	45.9	12.82

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
10/07/2023 22:00	45.65	12.82
10/07/2023 23:00	38.12	13.29
11/07/2023 00:00	26.68	13.68
11/07/2023 01:00	26.77	13.68
11/07/2023 02:00	26.74	13.68
11/07/2023 03:00	26.77	13.68
11/07/2023 04:00	27.24	13.69
11/07/2023 05:00	27.29	13.7
11/07/2023 06:00	27.37	13.69
11/07/2023 07:00	28.78	13.62
11/07/2023 08:00	45.64	12.75
11/07/2023 09:00	45.68	12.75
11/07/2023 10:00	45.45	12.75
11/07/2023 11:00	45.29	12.76
11/07/2023 12:00	45.37	12.77
11/07/2023 13:00	45.63	12.78
11/07/2023 14:00	45.81	12.8
11/07/2023 15:00	45.96	12.79
11/07/2023 16:00	46.06	12.79
11/07/2023 17:00	46.06	12.79
11/07/2023 18:00	45.81	12.8
11/07/2023 19:00	45.79	12.82
11/07/2023 20:00	45.5	12.84
11/07/2023 21:00	45.33	12.84
11/07/2023 22:00	45.38	12.83
11/07/2023 23:00	37.99	13.29
12/07/2023 00:00	26.59	13.68
12/07/2023 01:00	26.65	13.68
12/07/2023 02:00	26.58	13.67
12/07/2023 03:00	26.64	13.68
12/07/2023 04:00	26.79	13.68
12/07/2023 05:00	26.82	13.7
12/07/2023 06:00	27.01	13.7
12/07/2023 07:00	28.8	13.64

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
12/07/2023 08:00	45.13	12.77
12/07/2023 09:00	44.97	12.77
12/07/2023 10:00	44.97	12.77
12/07/2023 11:00	45.42	12.76
12/07/2023 12:00	45.78	12.75
12/07/2023 13:00	45.78	12.74
12/07/2023 14:00	45.66	12.73
12/07/2023 15:00	45.69	12.71
12/07/2023 16:00	45.84	12.73
12/07/2023 17:00	46.04	12.76
12/07/2023 18:00	46.12	12.78
12/07/2023 19:00	46.53	12.83
12/07/2023 20:00	46.32	12.83
12/07/2023 21:00	46.03	12.83
12/07/2023 22:00	45.72	12.83
12/07/2023 23:00	38.12	13.3
13/07/2023 00:00	26.36	13.69
13/07/2023 01:00	26.65	13.7
13/07/2023 02:00	26.7	13.7
13/07/2023 03:00	26.61	13.69
13/07/2023 04:00	26.63	13.69
13/07/2023 05:00	26.69	13.69
13/07/2023 06:00	26.63	13.69
13/07/2023 07:00	28.18	13.72
13/07/2023 08:00	44.99	13.09
13/07/2023 09:00	45.34	12.79
13/07/2023 10:00	45.6	12.77
13/07/2023 11:00	45.7	12.76
13/07/2023 12:00	45.81	12.75
13/07/2023 13:00	45.67	12.75
13/07/2023 14:00	45.63	12.74
13/07/2023 15:00	45.51	12.77
13/07/2023 16:00	45.66	12.78
13/07/2023 17:00	46.03	12.78

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
13/07/2023 18:00	46.04	12.78
13/07/2023 19:00	45.8	12.79
13/07/2023 20:00	45.44	12.8
13/07/2023 21:00	45.12	12.8
13/07/2023 22:00	44.87	12.8
13/07/2023 23:00	37.73	13.27
14/07/2023 00:00	26.3	13.69
14/07/2023 01:00	26.16	13.68
14/07/2023 02:00	26.44	13.7
14/07/2023 03:00	26.93	13.72
14/07/2023 04:00	27.22	13.74
14/07/2023 05:00	27.01	13.72
14/07/2023 06:00	26.9	13.71
14/07/2023 07:00	28.8	13.65
14/07/2023 08:00	45.61	12.79
14/07/2023 09:00	45.88	12.78
14/07/2023 10:00	45.72	12.77
14/07/2023 11:00	45.59	12.76
14/07/2023 12:00	45.75	12.76
14/07/2023 13:00	45.47	12.74
14/07/2023 14:00	45.46	12.75
14/07/2023 15:00	45.44	12.79
14/07/2023 16:00	45.8	12.78
14/07/2023 17:00	45.85	12.78
14/07/2023 18:00	45.94	12.77
14/07/2023 19:00	45.8	12.78
14/07/2023 20:00	45.43	12.79
14/07/2023 21:00	44.97	12.79
14/07/2023 22:00	44.68	12.79
14/07/2023 23:00	37.47	13.28
15/07/2023 00:00	28.04	13.77
15/07/2023 01:00	28.49	13.79
15/07/2023 02:00	28.22	13.77
15/07/2023 03:00	27.86	13.74

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
15/07/2023 04:00	27.82	13.73
15/07/2023 05:00	28.02	13.76
15/07/2023 06:00	27.65	13.74
15/07/2023 07:00	29.39	13.74
15/07/2023 08:00	44.99	12.82
15/07/2023 09:00	45.05	12.76
15/07/2023 10:00	44.89	12.75
15/07/2023 11:00	44.93	12.75
15/07/2023 12:00	45.3	12.74
15/07/2023 13:00	45.32	12.73
15/07/2023 14:00	45.23	12.74
15/07/2023 15:00	45.43	12.74
15/07/2023 16:00	45.8	12.77
15/07/2023 17:00	46.14	12.8
15/07/2023 18:00	46.3	12.81
15/07/2023 19:00	46.39	12.82
15/07/2023 20:00	46.29	12.81
15/07/2023 21:00	46.15	12.8
15/07/2023 22:00	46.14	12.79
15/07/2023 23:00	38.27	13.26
16/07/2023 00:00	27.04	13.74
16/07/2023 01:00	28.63	13.8
16/07/2023 02:00	28.23	13.78
16/07/2023 03:00	27.71	13.76
16/07/2023 04:00	27.48	13.75
16/07/2023 05:00	27.62	13.77
16/07/2023 06:00	27.68	13.78
16/07/2023 07:00	27.7	13.78
16/07/2023 08:00	27.67	13.78
16/07/2023 09:00	27.68	13.79
16/07/2023 10:00	28.06	13.8
16/07/2023 11:00	27.87	13.8
16/07/2023 12:00	27.67	13.81
16/07/2023 13:00	27.69	13.82

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
16/07/2023 14:00	28.05	13.84
16/07/2023 15:00	28.09	13.85
16/07/2023 16:00	27.62	13.84
16/07/2023 17:00	28.96	13.81
16/07/2023 18:00	45.06	12.82
16/07/2023 19:00	45.52	12.78
16/07/2023 20:00	45.64	12.78
16/07/2023 21:00	45.17	12.8
16/07/2023 22:00	45.13	12.83
16/07/2023 23:00	28.61	13.75
17/07/2023 00:00	27.52	13.78
17/07/2023 01:00	28.07	13.79
17/07/2023 02:00	27.96	13.78
17/07/2023 03:00	27.68	13.77
17/07/2023 04:00	27.91	13.78
17/07/2023 05:00	28.16	13.79
17/07/2023 06:00	27.98	13.78
17/07/2023 07:00	29.44	13.72
17/07/2023 08:00	45.22	12.79
17/07/2023 09:00	45.33	12.77
17/07/2023 10:00	45.38	12.77
17/07/2023 11:00	45.34	12.74
17/07/2023 12:00	45.36	12.74
17/07/2023 13:00	45.35	12.72
17/07/2023 14:00	45.51	12.72
17/07/2023 15:00	45.42	12.72
17/07/2023 16:00	45.46	12.73
17/07/2023 17:00	45.52	12.75
17/07/2023 18:00	45.66	12.78
17/07/2023 19:00	45.64	12.79
17/07/2023 20:00	45.91	12.81
17/07/2023 21:00	45.53	12.81
17/07/2023 22:00	45.44	12.81
17/07/2023 23:00	37.57	13.32

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
18/07/2023 00:00	26.95	13.75
18/07/2023 01:00	27.36	13.77
18/07/2023 02:00	27.55	13.78
18/07/2023 03:00	27.73	13.78
18/07/2023 04:00	27.9	13.78
18/07/2023 05:00	27.86	13.78
18/07/2023 06:00	27.79	13.79
18/07/2023 07:00	29.21	13.71
18/07/2023 08:00	45.31	12.78
18/07/2023 09:00	45.11	12.76
18/07/2023 10:00	45.07	12.76
18/07/2023 11:00	45.24	12.75
18/07/2023 12:00	45.35	12.74
18/07/2023 13:00	45.58	12.75
18/07/2023 14:00	45.67	12.76
18/07/2023 15:00	45.46	12.76
18/07/2023 16:00	45.27	12.75
18/07/2023 17:00	45.49	12.76
18/07/2023 18:00	45.5	12.77
18/07/2023 19:00	45.26	12.8
18/07/2023 20:00	45.11	12.81
18/07/2023 21:00	45.54	12.79
18/07/2023 22:00	45.48	12.79
18/07/2023 23:00	37.64	13.31
19/07/2023 00:00	27.17	13.75
19/07/2023 01:00	27.53	13.76
19/07/2023 02:00	27.5	13.77
19/07/2023 03:00	27.52	13.77
19/07/2023 04:00	27.39	13.77
19/07/2023 05:00	27.33	13.76
19/07/2023 06:00	27.26	13.77
19/07/2023 07:00	28.8	13.68
19/07/2023 08:00	45.16	12.82
19/07/2023 09:00	45.43	12.83

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
19/07/2023 10:00	45.56	12.8
19/07/2023 11:00	45.33	12.76
19/07/2023 12:00	45.21	12.75
19/07/2023 13:00	45.21	12.74
19/07/2023 14:00	44.94	12.72
19/07/2023 15:00	45.08	12.73
19/07/2023 16:00	45.18	12.73
19/07/2023 17:00	45.26	12.77
19/07/2023 18:00	45.37	12.77
19/07/2023 19:00	45.33	12.8
19/07/2023 20:00	45.32	12.81
19/07/2023 21:00	45.63	12.83
19/07/2023 22:00	45.5	12.83
19/07/2023 23:00	37.69	13.31
20/07/2023 00:00	26.94	13.74
20/07/2023 01:00	27.56	13.77
20/07/2023 02:00	27.46	13.77
20/07/2023 03:00	27.29	13.76
20/07/2023 04:00	27.22	13.76
20/07/2023 05:00	27.62	13.77
20/07/2023 06:00	27.59	13.77
20/07/2023 07:00	28.93	13.69
20/07/2023 08:00	45.45	12.78
20/07/2023 09:00	45.54	12.78
20/07/2023 10:00	45.31	12.76
20/07/2023 11:00	45.53	12.77
20/07/2023 12:00	45.7	12.77
20/07/2023 13:00	45.59	12.76
20/07/2023 14:00	45.72	12.77
20/07/2023 15:00	45.82	12.77
20/07/2023 16:00	45.89	12.76
20/07/2023 17:00	45.81	12.76
20/07/2023 18:00	46.09	12.76
20/07/2023 19:00	46.25	12.8

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
20/07/2023 20:00	46.12	12.83
20/07/2023 21:00	45.99	12.83
20/07/2023 22:00	45.19	12.85
20/07/2023 23:00	38.05	13.32
21/07/2023 00:00	27.08	13.7
21/07/2023 01:00	26.95	13.69
21/07/2023 02:00	27.07	13.7
21/07/2023 03:00	27.33	13.7
21/07/2023 04:00	27.66	13.71
21/07/2023 05:00	27.73	13.71
21/07/2023 06:00	27.74	13.71
21/07/2023 07:00	29.47	13.65
21/07/2023 08:00	45.24	12.82
21/07/2023 09:00	44.97	12.81
21/07/2023 10:00	44.86	12.82
21/07/2023 11:00	44.74	12.82
21/07/2023 12:00	45.34	12.79
21/07/2023 13:00	45.58	12.78
21/07/2023 14:00	45.66	12.76
21/07/2023 15:00	45.81	12.76
21/07/2023 16:00	45.65	12.74
21/07/2023 17:00	45.71	12.75
21/07/2023 18:00	45.69	12.77
21/07/2023 19:00	45.49	12.78
21/07/2023 20:00	45.09	12.79
21/07/2023 21:00	44.6	12.8
21/07/2023 22:00	44.59	12.8
21/07/2023 23:00	37.53	13.26
22/07/2023 00:00	26.44	13.68
22/07/2023 01:00	26.62	13.69
22/07/2023 02:00	26.66	13.69
22/07/2023 03:00	26.6	13.68
22/07/2023 04:00	26.59	13.69
22/07/2023 05:00	26.79	13.69

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
22/07/2023 06:00	26.81	13.69
22/07/2023 07:00	28.68	13.63
22/07/2023 08:00	45.77	12.79
22/07/2023 09:00	45.63	12.78
22/07/2023 10:00	45.48	12.78
22/07/2023 11:00	45.63	12.77
22/07/2023 12:00	45.68	12.76
22/07/2023 13:00	46.15	12.77
22/07/2023 14:00	46.23	12.79
22/07/2023 15:00	45.79	12.79
22/07/2023 16:00	45.73	12.82
22/07/2023 17:00	46.13	12.83
22/07/2023 18:00	46.18	12.83
22/07/2023 19:00	45.91	12.82
22/07/2023 20:00	45.7	12.82
22/07/2023 21:00	45.38	12.83
22/07/2023 22:00	45.39	12.82
22/07/2023 23:00	37.95	13.27
23/07/2023 00:00	26.62	13.67
23/07/2023 01:00	26.36	13.67
23/07/2023 02:00	26.5	13.67
23/07/2023 03:00	26.73	13.68
23/07/2023 04:00	26.84	13.69
23/07/2023 05:00	26.89	13.69
23/07/2023 06:00	26.92	13.69
23/07/2023 07:00	26.74	13.69
23/07/2023 08:00	26.49	13.68
23/07/2023 09:00	26.32	13.67
23/07/2023 10:00	26.18	13.67
23/07/2023 11:00	26.71	13.7
23/07/2023 12:00	27.19	13.71
23/07/2023 13:00	26.98	13.71
23/07/2023 14:00	26.47	13.69
23/07/2023 15:00	26.65	13.69

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
23/07/2023 16:00	27.16	13.71
23/07/2023 17:00	28.91	13.64
23/07/2023 18:00	45.57	12.8
23/07/2023 19:00	45.41	12.8
23/07/2023 20:00	45.24	12.82
23/07/2023 21:00	45.43	12.81
23/07/2023 22:00	45.56	12.82
23/07/2023 23:00	28.62	13.7
24/07/2023 00:00	26.76	13.68
24/07/2023 01:00	26.66	13.67
24/07/2023 02:00	26.78	13.68
24/07/2023 03:00	27.01	13.69
24/07/2023 04:00	27.11	13.7
24/07/2023 05:00	27.22	13.71
24/07/2023 06:00	27.37	13.71
24/07/2023 07:00	29.63	13.66
24/07/2023 08:00	45.2	12.81
24/07/2023 09:00	45.17	12.79
24/07/2023 10:00	45.33	12.77
24/07/2023 11:00	45.61	12.77
24/07/2023 12:00	45.84	12.77
24/07/2023 13:00	45.52	12.76
24/07/2023 14:00	45.48	12.73
24/07/2023 15:00	45.52	12.76
24/07/2023 16:00	45.73	12.76
24/07/2023 17:00	46.22	12.78
24/07/2023 18:00	46.3	12.82
24/07/2023 19:00	46.16	12.83
24/07/2023 20:00	46.02	12.82
24/07/2023 21:00	45.99	12.81
24/07/2023 22:00	45.93	12.81
24/07/2023 23:00	37.89	13.28
25/07/2023 00:00	26.65	13.72
25/07/2023 01:00	27.13	13.74

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
25/07/2023 02:00	27.2	13.74
25/07/2023 03:00	27.33	13.74
25/07/2023 04:00	27.38	13.75
25/07/2023 05:00	27.59	13.75
25/07/2023 06:00	27.39	13.74
25/07/2023 07:00	28.81	13.67
25/07/2023 08:00	45.78	12.8
25/07/2023 09:00	Calib	Calib
25/07/2023 10:00	Maintenance_DIW	Maintenance_DIW
25/07/2023 11:00	Maintenance_DIW	Maintenance_DIW
25/07/2023 12:00	Maintenance_DIW	Maintenance_DIW
25/07/2023 13:00	<Samp	<Samp
25/07/2023 14:00	42.13	12.63
25/07/2023 15:00	42.14	12.62
25/07/2023 16:00	41.97	12.62
25/07/2023 17:00	42.11	12.62
25/07/2023 18:00	42.19	12.62
25/07/2023 19:00	42.43	12.65
25/07/2023 20:00	42.41	12.65
25/07/2023 21:00	41.92	12.66
25/07/2023 22:00	41.74	12.66
25/07/2023 23:00	34.27	13.16
26/07/2023 00:00	24.28	13.59
26/07/2023 01:00	24.71	13.61
26/07/2023 02:00	24.59	13.61
26/07/2023 03:00	24.57	13.59
26/07/2023 04:00	24.59	13.59
26/07/2023 05:00	24.37	13.57
26/07/2023 06:00	24.45	13.59
26/07/2023 07:00	25.94	13.54
26/07/2023 08:00	41.47	12.63
26/07/2023 09:00	41.57	12.6
26/07/2023 10:00	41.51	12.6
26/07/2023 11:00	41.63	12.58

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
26/07/2023 12:00	41.94	12.58
26/07/2023 13:00	41.9	12.59
26/07/2023 14:00	41.81	12.59
26/07/2023 15:00	41.7	12.59
26/07/2023 16:00	41.53	12.56
26/07/2023 17:00	41.63	12.57
26/07/2023 18:00	42.13	12.62
26/07/2023 19:00	42.24	12.64
26/07/2023 20:00	42.04	12.64
26/07/2023 21:00	42.05	12.64
26/07/2023 22:00	41.78	12.65
26/07/2023 23:00	34.17	13.16
27/07/2023 00:00	25.05	13.63
27/07/2023 01:00	25.31	13.64
27/07/2023 02:00	25.06	13.64
27/07/2023 03:00	24.81	13.62
27/07/2023 04:00	24.56	13.61
27/07/2023 05:00	24.31	13.6
27/07/2023 06:00	24.28	13.6
27/07/2023 07:00	25.42	13.51
27/07/2023 08:00	41.32	12.6
27/07/2023 09:00	41.27	12.57
27/07/2023 10:00	41.47	12.56
27/07/2023 11:00	41.58	12.57
27/07/2023 12:00	41.59	12.58
27/07/2023 13:00	41.7	12.58
27/07/2023 14:00	41.52	12.58
27/07/2023 15:00	41.52	12.6
27/07/2023 16:00	41.75	12.59
27/07/2023 17:00	41.74	12.59
27/07/2023 18:00	41.92	12.61
27/07/2023 19:00	42.01	12.66
27/07/2023 20:00	41.81	12.66
27/07/2023 21:00	41.65	12.67

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
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27/07/2023 23:00	34.16	13.15
28/07/2023 00:00	23.95	13.59
28/07/2023 01:00	24.33	13.61
28/07/2023 02:00	24.28	13.61
28/07/2023 03:00	24.09	13.59
28/07/2023 04:00	24.16	13.6
28/07/2023 05:00	24.16	13.6
28/07/2023 06:00	24.08	13.6
28/07/2023 07:00	24.03	13.6
28/07/2023 08:00	24.35	13.62
28/07/2023 09:00	24.12	13.62
28/07/2023 10:00	24.24	13.62
28/07/2023 11:00	24.04	13.63
28/07/2023 12:00	23.97	13.64
28/07/2023 13:00	23.56	13.62
28/07/2023 14:00	23.53	13.62
28/07/2023 15:00	23.62	13.64
28/07/2023 16:00	24.06	13.67
28/07/2023 17:00	25.22	13.58
28/07/2023 18:00	40.36	12.61
28/07/2023 19:00	40.59	12.62
28/07/2023 20:00	40.96	12.64
28/07/2023 21:00	41.21	13.1
28/07/2023 22:00	41.04	12.69
28/07/2023 23:00	24.54	13.57
29/07/2023 00:00	23.43	13.58
29/07/2023 01:00	23.47	13.57
29/07/2023 02:00	23.56	13.58
29/07/2023 03:00	23.52	13.58
29/07/2023 04:00	23.42	13.59
29/07/2023 05:00	23.43	13.59
29/07/2023 06:00	23.2	13.58
29/07/2023 07:00	24.85	13.51

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
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29/07/2023 09:00	40.77	12.57
29/07/2023 10:00	40.8	12.57
29/07/2023 11:00	40.96	12.57
29/07/2023 12:00	40.82	12.56
29/07/2023 13:00	40.85	12.57
29/07/2023 14:00	41.17	12.58
29/07/2023 15:00	41.05	12.58
29/07/2023 16:00	41.21	12.59
29/07/2023 17:00	41.02	12.59
29/07/2023 18:00	40.98	12.6
29/07/2023 19:00	40.96	12.61
29/07/2023 20:00	41.06	12.62
29/07/2023 21:00	41.12	12.65
29/07/2023 22:00	40.93	12.65
29/07/2023 23:00	33.43	13.14
30/07/2023 00:00	22.81	13.54
30/07/2023 01:00	22.94	13.54
30/07/2023 02:00	23.27	13.56
30/07/2023 03:00	23.38	13.57
30/07/2023 04:00	23.55	13.57
30/07/2023 05:00	23.57	13.58
30/07/2023 06:00	23.48	13.58
30/07/2023 07:00	23.27	13.58
30/07/2023 08:00	23.39	13.58
30/07/2023 09:00	23.4	13.58
30/07/2023 10:00	23.59	13.59
30/07/2023 11:00	23.7	13.59
30/07/2023 12:00	23.85	13.6
30/07/2023 13:00	23.45	13.6
30/07/2023 14:00	23.56	13.61
30/07/2023 15:00	0.89	21.04
30/07/2023 17:00	47.97	14.8
30/07/2023 18:00	27.2	13.75

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
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30/07/2023 20:00	42.21	12.63
30/07/2023 21:00	41.98	12.63
30/07/2023 22:00	41.88	12.65
30/07/2023 23:00	24.95	13.52
31/07/2023 00:00	23.25	13.51
31/07/2023 01:00	23.3	13.51
31/07/2023 02:00	23.56	13.53
31/07/2023 03:00	23.71	13.53
31/07/2023 04:00	23.8	13.55
31/07/2023 05:00	23.6	13.54
31/07/2023 06:00	23.68	13.55
31/07/2023 07:00	25.37	13.47
31/07/2023 08:00	41.58	12.62
31/07/2023 09:00	41.47	12.63
31/07/2023 10:00	40.87	12.64
31/07/2023 11:00	41.32	12.62
31/07/2023 12:00	41.81	12.59
31/07/2023 13:00	41.83	12.57
31/07/2023 14:00	41.78	12.56
31/07/2023 15:00	42.02	12.58
31/07/2023 16:00	42.06	12.59
31/07/2023 17:00	42.08	12.6
31/07/2023 18:00	42.22	12.61
31/07/2023 19:00	42.11	12.62
31/07/2023 20:00	41.88	12.63
31/07/2023 21:00	41.3	12.64
31/07/2023 22:00	41.35	12.63
31/07/2023 23:00	33.81	13.09
01/08/2023 00:00	22.47	13.51
01/08/2023 01:00	23.09	13.53
01/08/2023 02:00	23.79	13.57
01/08/2023 03:00	23.96	13.58
01/08/2023 04:00	23.76	13.56

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
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01/08/2023 06:00	23.38	13.55
01/08/2023 07:00	23.54	13.57
01/08/2023 08:00	23.81	13.58
01/08/2023 09:00	35.08	12.96
01/08/2023 10:00	41.31	12.59
01/08/2023 11:00	41.24	12.6
01/08/2023 12:00	41.08	12.6
01/08/2023 13:00	41.16	12.59
01/08/2023 14:00	41.37	12.57
01/08/2023 15:00	41.55	12.59
01/08/2023 16:00	41.64	12.6
01/08/2023 17:00	41.72	12.62
01/08/2023 18:00	41.75	12.64
01/08/2023 19:00	41.76	12.64
01/08/2023 20:00	41.89	12.64
01/08/2023 21:00	41.81	12.64
01/08/2023 22:00	41.59	12.63
01/08/2023 23:00	29.26	13.33
02/08/2023 00:00	23.48	13.56
02/08/2023 01:00	23.99	13.58
02/08/2023 02:00	23.88	13.58
02/08/2023 03:00	23.71	13.57
02/08/2023 04:00	23.69	13.57
02/08/2023 05:00	23.63	13.57
02/08/2023 06:00	23.47	13.56
02/08/2023 07:00	23.5	13.56
02/08/2023 08:00	23.5	13.57
02/08/2023 09:00	33.82	13
02/08/2023 10:00	40.95	12.6
02/08/2023 11:00	40.83	12.61
02/08/2023 12:00	41.08	12.59
02/08/2023 13:00	41.39	12.59
02/08/2023 14:00	41.76	12.61

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
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02/08/2023 16:00	41.65	12.62
02/08/2023 17:00	41.74	12.62
02/08/2023 18:00	41.63	12.63
02/08/2023 19:00	41.74	12.63
02/08/2023 20:00	41.76	12.63
02/08/2023 21:00	41.64	12.63
02/08/2023 22:00	41.44	12.63
02/08/2023 23:00	28.81	13.33
03/08/2023 00:00	22.69	13.53
03/08/2023 01:00	23.22	13.56
03/08/2023 02:00	23.6	13.57
03/08/2023 03:00	23.48	13.57
03/08/2023 04:00	23.34	13.56
03/08/2023 05:00	23.23	13.56
03/08/2023 06:00	23.3	13.57
03/08/2023 07:00	23.19	13.57
03/08/2023 08:00	23.28	13.57
03/08/2023 09:00	33.52	13.02
03/08/2023 10:00	41.23	12.59
03/08/2023 11:00	41.73	12.61
03/08/2023 12:00	41.82	12.63
03/08/2023 13:00	41.65	12.61
03/08/2023 14:00	41.76	12.59
03/08/2023 15:00	41.91	12.61
03/08/2023 16:00	41.67	12.61
03/08/2023 17:00	41.54	12.61
03/08/2023 18:00	41.57	12.63
03/08/2023 19:00	41.64	12.63
03/08/2023 20:00	41.71	12.63
03/08/2023 21:00	41.63	12.63
03/08/2023 22:00	41.4	12.65
03/08/2023 23:00	29	13.36
04/08/2023 00:00	23.2	13.54

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
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04/08/2023 02:00	23.75	13.57
04/08/2023 03:00	23.82	13.58
04/08/2023 04:00	23.71	13.57
04/08/2023 05:00	23.59	13.56
04/08/2023 06:00	23.5	13.56
04/08/2023 07:00	23.81	13.58
04/08/2023 08:00	23.57	13.57
04/08/2023 09:00	33.76	13.03
04/08/2023 10:00	40.49	12.63
04/08/2023 11:00	40.9	12.61
04/08/2023 12:00	41.12	12.6
04/08/2023 13:00	41.36	12.59
04/08/2023 14:00	41.46	12.6
04/08/2023 15:00	41.82	12.61
04/08/2023 16:00	41.8	12.62
04/08/2023 17:00	41.63	12.64
04/08/2023 18:00	41.46	12.67
04/08/2023 19:00	41.16	12.68
04/08/2023 20:00	40.95	12.67
04/08/2023 21:00	40.74	12.67
04/08/2023 22:00	40.55	12.67
04/08/2023 23:00	28.9	13.35
05/08/2023 00:00	22.78	13.53
05/08/2023 01:00	23.49	13.56
05/08/2023 02:00	23.45	13.57
05/08/2023 03:00	23.55	13.57
05/08/2023 04:00	23.27	13.56
05/08/2023 05:00	23.37	13.56
05/08/2023 06:00	23.3	13.56
05/08/2023 07:00	23.11	13.56
05/08/2023 08:00	23.51	13.57
05/08/2023 09:00	33.29	13.04
05/08/2023 10:00	40.34	12.61

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
05/08/2023 11:00	40.54	12.62
05/08/2023 12:00	40.66	12.61
05/08/2023 13:00	41.29	12.59
05/08/2023 14:00	41.52	12.62
05/08/2023 15:00	41.7	12.63
05/08/2023 16:00	41.74	12.65
05/08/2023 17:00	41.59	12.66
05/08/2023 18:00	41.32	12.66
05/08/2023 19:00	40.9	12.66
05/08/2023 20:00	40.52	12.66
05/08/2023 21:00	40.72	12.66
05/08/2023 22:00	40.7	12.66
05/08/2023 23:00	29.22	13.36
06/08/2023 00:00	23.36	13.55
06/08/2023 01:00	23.69	13.57
06/08/2023 02:00	23.55	13.57
06/08/2023 03:00	23.62	13.57
06/08/2023 04:00	23.57	13.57
06/08/2023 05:00	23.45	13.57
06/08/2023 06:00	23.46	13.57
06/08/2023 07:00	23.36	13.57
06/08/2023 08:00	23.55	13.57
06/08/2023 09:00	23.39	13.57
06/08/2023 10:00	23.53	13.57
06/08/2023 11:00	23.55	13.57
06/08/2023 12:00	23.38	13.58
06/08/2023 13:00	23.32	13.58
06/08/2023 14:00	23.25	13.59
06/08/2023 15:00	23.18	13.59
06/08/2023 16:00	22.97	13.59
06/08/2023 17:00	22.88	13.59
06/08/2023 18:00	37.99	12.81
06/08/2023 19:00	41.22	12.64
06/08/2023 20:00	41.09	12.65

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
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06/08/2023 22:00	33.68	13.11
06/08/2023 23:00	23.06	13.55
07/08/2023 00:00	23.62	13.58
07/08/2023 01:00	23.52	13.58
07/08/2023 02:00	23.5	13.57
07/08/2023 03:00	23.41	13.56
07/08/2023 04:00	23.19	13.56
07/08/2023 05:00	23.17	13.56
07/08/2023 06:00	23.24	13.56
07/08/2023 07:00	23.3	13.57
07/08/2023 08:00	23.31	13.57
07/08/2023 09:00	33.58	13.02
07/08/2023 10:00	41	12.6
07/08/2023 11:00	41.1	12.6
07/08/2023 12:00	41.35	12.59
07/08/2023 13:00	41.61	12.6
07/08/2023 14:00	41.81	12.61
07/08/2023 15:00	41.87	12.62
07/08/2023 16:00	42.15	12.63
07/08/2023 17:00	41.92	12.63
07/08/2023 18:00	41.74	12.64
07/08/2023 19:00	41.59	12.64
07/08/2023 20:00	41.4	12.64
07/08/2023 21:00	41	12.65
07/08/2023 22:00	40.9	12.65
07/08/2023 23:00	29.42	13.33
08/08/2023 00:00	23.55	13.57
08/08/2023 01:00	23.66	13.58
08/08/2023 02:00	23.67	13.58
08/08/2023 03:00	23.41	13.57
08/08/2023 04:00	23.4	13.57
08/08/2023 05:00	23.33	13.57
08/08/2023 06:00	23.25	13.57

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
08/08/2023 07:00	23.21	13.57
08/08/2023 08:00	23.28	13.58
08/08/2023 09:00	33.74	13.01
08/08/2023 10:00	41.39	12.6
08/08/2023 11:00	41.55	12.6
08/08/2023 12:00	41.46	12.58
08/08/2023 13:00	41.61	12.59
08/08/2023 14:00	41.82	12.59
08/08/2023 15:00	42.01	12.6
08/08/2023 16:00	42.03	12.62
08/08/2023 17:00	42.18	12.64
08/08/2023 18:00	41.81	12.66
08/08/2023 19:00	41.85	12.66
08/08/2023 20:00	41.61	12.66
08/08/2023 21:00	41.26	12.66
08/08/2023 22:00	41.25	12.65
08/08/2023 23:00	29.44	13.35
09/08/2023 00:00	23.35	13.56
09/08/2023 01:00	23.76	13.59
09/08/2023 02:00	23.87	13.59
09/08/2023 03:00	23.6	13.58
09/08/2023 04:00	23.61	13.57
09/08/2023 05:00	23.41	13.57
09/08/2023 06:00	23.56	13.58
09/08/2023 07:00	23.5	13.58
09/08/2023 08:00	23.67	13.58
09/08/2023 09:00	33.22	13.17
09/08/2023 10:00	41.22	12.62
09/08/2023 11:00	41.36	12.6
09/08/2023 12:00	41.57	12.59
09/08/2023 13:00	41.67	12.59
09/08/2023 14:00	41.8	12.59
09/08/2023 15:00	41.8	12.6
09/08/2023 16:00	41.78	12.61

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
09/08/2023 17:00	41.85	12.64
09/08/2023 18:00	41.82	12.66
09/08/2023 19:00	41.7	12.67
09/08/2023 20:00	41.63	12.66
09/08/2023 21:00	41.63	12.65
09/08/2023 22:00	41.48	12.65
09/08/2023 23:00	29.34	13.34
10/08/2023 00:00	22.88	13.54
10/08/2023 01:00	23.24	13.55
10/08/2023 02:00	23.69	13.57
10/08/2023 03:00	24.04	13.57
10/08/2023 04:00	23.88	13.56
10/08/2023 05:00	23.78	13.55
10/08/2023 06:00	23.67	13.55
10/08/2023 07:00	23.28	13.55
10/08/2023 08:00	23.31	13.55
10/08/2023 09:00	33.99	13.02
10/08/2023 10:00	41.4	12.59
10/08/2023 11:00	41.43	12.58
10/08/2023 12:00	41.45	12.58
10/08/2023 13:00	41.28	12.58
10/08/2023 14:00	41.27	12.58
10/08/2023 15:00	41.24	12.57
10/08/2023 16:00	41.63	12.59
10/08/2023 17:00	41.85	12.65
10/08/2023 18:00	42.02	12.67
10/08/2023 19:00	41.95	12.66
10/08/2023 20:00	41.71	12.65
10/08/2023 21:00	41.65	12.64
10/08/2023 22:00	41.16	12.65
10/08/2023 23:00	29.28	13.37
11/08/2023 00:00	23.4	13.57
11/08/2023 01:00	23.86	13.6
11/08/2023 02:00	23.97	13.59

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
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11/08/2023 04:00	23.81	13.58
11/08/2023 05:00	23.72	13.58
11/08/2023 06:00	23.65	13.59
11/08/2023 07:00	23.37	13.57
11/08/2023 08:00	23.26	13.57
11/08/2023 09:00	33.62	13.15
11/08/2023 10:00	41.49	12.59
11/08/2023 11:00	41.51	12.58
11/08/2023 12:00	41.37	12.57
11/08/2023 13:00	41.33	12.55
11/08/2023 14:00	41.44	12.56
11/08/2023 15:00	41.43	12.57
11/08/2023 16:00	41.52	12.58
11/08/2023 17:00	42	12.62
11/08/2023 18:00	42.06	12.64
11/08/2023 19:00	41.85	12.66
11/08/2023 20:00	41.75	12.65
11/08/2023 21:00	41.59	12.65
11/08/2023 22:00	41.23	12.65
11/08/2023 23:00	40.91	13.85
12/08/2023 00:00	<Samp	<Samp
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12/08/2023 08:00	Shutdown_DIW	Shutdown_DIW
12/08/2023 09:00	Shutdown_DIW	Shutdown_DIW
12/08/2023 10:00	Shutdown_DIW	Shutdown_DIW
12/08/2023 11:00	Shutdown_DIW	Shutdown_DIW
12/08/2023 12:00	Shutdown_DIW	Shutdown_DIW

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
12/08/2023 13:00	Shutdown_DIW	Shutdown_DIW
12/08/2023 14:00	Shutdown_DIW	Shutdown_DIW
12/08/2023 15:00	Shutdown_DIW	Shutdown_DIW
12/08/2023 16:00	Shutdown_DIW	Shutdown_DIW
12/08/2023 17:00	Shutdown_DIW	Shutdown_DIW
12/08/2023 18:00	Shutdown_DIW	Shutdown_DIW
12/08/2023 19:00	Shutdown_DIW	Shutdown_DIW
12/08/2023 20:00	Shutdown_DIW	Shutdown_DIW
12/08/2023 21:00	Shutdown_DIW	Shutdown_DIW
12/08/2023 22:00	Shutdown_DIW	Shutdown_DIW
12/08/2023 23:00	Shutdown_DIW	Shutdown_DIW
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13/08/2023 07:00	Shutdown_DIW	Shutdown_DIW
13/08/2023 08:00	Shutdown_DIW	Shutdown_DIW
13/08/2023 09:00	Shutdown_DIW	Shutdown_DIW
13/08/2023 10:00	Shutdown_DIW	Shutdown_DIW
13/08/2023 11:00	Shutdown_DIW	Shutdown_DIW
13/08/2023 12:00	Shutdown_DIW	Shutdown_DIW
13/08/2023 13:00	Shutdown_DIW	Shutdown_DIW
13/08/2023 14:00	Shutdown_DIW	Shutdown_DIW
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13/08/2023 16:00	Shutdown_DIW	Shutdown_DIW
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13/08/2023 19:00	Shutdown_DIW	Shutdown_DIW
13/08/2023 20:00	Shutdown_DIW	Shutdown_DIW
13/08/2023 21:00	Shutdown_DIW	Shutdown_DIW
13/08/2023 22:00	Shutdown_DIW	Shutdown_DIW

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
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14/08/2023 04:00	Shutdown_DIW	Shutdown_DIW
14/08/2023 05:00	Shutdown_DIW	Shutdown_DIW
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14/08/2023 10:00	Shutdown_DIW	Shutdown_DIW
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14/08/2023 12:00	Shutdown_DIW	Shutdown_DIW
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14/08/2023 16:00	Shutdown_DIW	Shutdown_DIW
14/08/2023 17:00	Shutdown_DIW	Shutdown_DIW
14/08/2023 18:00	Shutdown_DIW	Shutdown_DIW
14/08/2023 19:00	Shutdown_DIW	Shutdown_DIW
14/08/2023 20:00	Shutdown_DIW	Shutdown_DIW
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14/08/2023 22:00	Shutdown_DIW	Shutdown_DIW
14/08/2023 23:00	Shutdown_DIW	Shutdown_DIW
15/08/2023 00:00	Shutdown_DIW	Shutdown_DIW
15/08/2023 01:00	Shutdown_DIW	Shutdown_DIW
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15/08/2023 04:00	Shutdown_DIW	Shutdown_DIW
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15/08/2023 06:00	Shutdown_DIW	Shutdown_DIW
15/08/2023 07:00	Shutdown_DIW	Shutdown_DIW
15/08/2023 08:00	<Samp	<Samp

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
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15/08/2023 13:00	43.31	12.56
15/08/2023 14:00	43.32	12.58
15/08/2023 15:00	43.2	12.62
15/08/2023 16:00	43.44	12.64
15/08/2023 17:00	43.55	12.64
15/08/2023 18:00	43.46	12.64
15/08/2023 19:00	43.09	12.64
15/08/2023 20:00	42.77	12.65
15/08/2023 21:00	42.36	12.65
15/08/2023 22:00	41.95	12.66
15/08/2023 23:00	30.39	13.37
16/08/2023 00:00	24.71	13.57
16/08/2023 01:00	24.48	13.57
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16/08/2023 03:00	24.65	13.58
16/08/2023 04:00	24.84	13.59
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16/08/2023 07:00	24.43	13.58
16/08/2023 08:00	24.44	13.57
16/08/2023 09:00	35.13	13.02
16/08/2023 10:00	43.06	12.63
16/08/2023 11:00	43.04	12.62
16/08/2023 12:00	42.77	12.59
16/08/2023 13:00	42.81	12.57
16/08/2023 14:00	42.85	12.58
16/08/2023 15:00	43.03	12.6
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Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
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16/08/2023 22:00	42.97	12.66
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17/08/2023 02:00	24.58	13.58
17/08/2023 03:00	24.52	13.57
17/08/2023 04:00	24.37	13.55
17/08/2023 05:00	24.38	13.56
17/08/2023 06:00	24.18	13.55
17/08/2023 07:00	23.99	13.55
17/08/2023 08:00	24.44	13.58
17/08/2023 09:00	34.59	13.15
17/08/2023 10:00	42.39	12.65
17/08/2023 11:00	42.38	12.65
17/08/2023 12:00	42.39	12.65
17/08/2023 13:00	42.22	12.64
17/08/2023 14:00	41.89	12.58
17/08/2023 15:00	41.92	12.57
17/08/2023 16:00	42.51	12.6
17/08/2023 17:00	42.9	12.63
17/08/2023 18:00	42.94	12.65
17/08/2023 19:00	42.88	12.67
17/08/2023 20:00	42.23	12.68
17/08/2023 21:00	41.92	12.68
17/08/2023 22:00	41.97	12.67
17/08/2023 23:00	30.17	13.36
18/08/2023 00:00	24.36	13.57
18/08/2023 01:00	24.57	13.58
18/08/2023 02:00	24.3	13.56
18/08/2023 03:00	24.04	13.55
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Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
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18/08/2023 06:00	23.99	13.55
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18/08/2023 08:00	24.2	13.58
18/08/2023 09:00	34.45	13.01
18/08/2023 10:00	41.67	12.6
18/08/2023 11:00	41.9	12.59
18/08/2023 12:00	42.09	12.59
18/08/2023 13:00	42.21	12.58
18/08/2023 14:00	42.18	12.58
18/08/2023 15:00	42.26	12.6
18/08/2023 16:00	42.22	12.58
18/08/2023 17:00	42.62	12.59
18/08/2023 18:00	42.75	12.62
18/08/2023 19:00	43.13	12.66
18/08/2023 20:00	43.08	12.66
18/08/2023 21:00	42.81	12.66
18/08/2023 22:00	42.94	12.65
18/08/2023 23:00	42.9	12.64
19/08/2023 00:00	42.98	12.67
19/08/2023 01:00	24.58	13.53
19/08/2023 02:00	23.12	13.53
19/08/2023 03:00	23.33	13.53
19/08/2023 04:00	23.37	13.53
19/08/2023 05:00	23.44	13.53
19/08/2023 06:00	23.28	13.53
19/08/2023 07:00	23.24	13.54
19/08/2023 08:00	23.92	13.58
19/08/2023 09:00	34.38	13.02
19/08/2023 10:00	41.79	12.58
19/08/2023 11:00	42.03	12.58
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19/08/2023 13:00	41.02	12.49
19/08/2023 14:00	40.43	12.44

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
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19/08/2023 18:00	42.64	12.61
19/08/2023 19:00	42.78	12.64
19/08/2023 20:00	42.8	12.63
19/08/2023 21:00	42.74	12.62
19/08/2023 22:00	42.77	12.63
19/08/2023 23:00	29.59	13.35
20/08/2023 00:00	22.72	13.52
20/08/2023 01:00	22.65	13.52
20/08/2023 02:00	22.55	13.51
20/08/2023 03:00	22.57	13.52
20/08/2023 04:00	22.6	13.52
20/08/2023 05:00	22.65	13.52
20/08/2023 06:00	22.39	13.52
20/08/2023 07:00	22.41	13.53
20/08/2023 08:00	23.31	13.58
20/08/2023 09:00	23.35	13.56
20/08/2023 10:00	23.49	13.55
20/08/2023 11:00	25.22	13.51
20/08/2023 12:00	23.05	13.55
20/08/2023 13:00	23.5	13.59
20/08/2023 14:00	23.49	13.6
20/08/2023 15:00	23.15	13.6
20/08/2023 16:00	23	13.58
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20/08/2023 18:00	38.95	12.79
20/08/2023 19:00	42.64	12.61
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20/08/2023 23:00	22.37	13.51
21/08/2023 00:00	22.92	13.52

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
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21/08/2023 02:00	23.46	13.53
21/08/2023 03:00	23.63	13.53
21/08/2023 04:00	23.61	13.54
21/08/2023 05:00	23.39	13.53
21/08/2023 06:00	23.27	13.53
21/08/2023 07:00	23.09	13.52
21/08/2023 08:00	23.18	13.52
21/08/2023 09:00	34.32	13.02
21/08/2023 10:00	42.52	12.63
21/08/2023 11:00	42.26	12.58
21/08/2023 12:00	42.19	12.57
21/08/2023 13:00	42.25	12.56
21/08/2023 14:00	42.29	12.58
21/08/2023 15:00	42.19	12.56
21/08/2023 16:00	42.17	12.59
21/08/2023 17:00	42.15	12.61
21/08/2023 18:00	41.88	12.62
21/08/2023 19:00	41.71	12.62
21/08/2023 20:00	41.92	12.66
21/08/2023 21:00	40.95	12.69
21/08/2023 22:00	40.88	12.68
21/08/2023 23:00	30.06	13.36
22/08/2023 00:00	23.52	13.52
22/08/2023 01:00	23.52	13.51
22/08/2023 02:00	23.49	13.51
22/08/2023 03:00	23.41	13.51
22/08/2023 04:00	23.4	13.51
22/08/2023 05:00	23.15	13.51
22/08/2023 06:00	23.07	13.51
22/08/2023 07:00	22.78	13.51
22/08/2023 08:00	22.83	13.52
22/08/2023 09:00	34.15	13
22/08/2023 10:00	42.02	12.58

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
22/08/2023 11:00	42.23	12.57
22/08/2023 12:00	42.6	12.59
22/08/2023 13:00	42.34	12.58
22/08/2023 14:00	42.67	12.61
22/08/2023 15:00	42.57	12.61
22/08/2023 16:00	42.38	12.62
22/08/2023 17:00	42.13	12.63
22/08/2023 18:00	42.35	12.65
22/08/2023 19:00	42.1	12.66
22/08/2023 20:00	42.29	12.66
22/08/2023 21:00	42.28	12.65
22/08/2023 22:00	41.88	12.65
22/08/2023 23:00	29.85	13.33
23/08/2023 00:00	22.91	13.5
23/08/2023 01:00	23.07	13.51
23/08/2023 02:00	23.04	13.52
23/08/2023 03:00	23.19	13.53
23/08/2023 04:00	23.34	13.55
23/08/2023 05:00	23.43	13.55
23/08/2023 06:00	23.44	13.56
23/08/2023 07:00	23.34	13.55
23/08/2023 08:00	23.24	13.56
23/08/2023 09:00	32.85	13.1
23/08/2023 10:00	Maintenance_DIW	Maintenance_DIW
23/08/2023 11:00	Maintenance_DIW	Maintenance_DIW
23/08/2023 12:00	Maintenance_DIW	Maintenance_DIW
23/08/2023 13:00	Maintenance_DIW	Maintenance_DIW
23/08/2023 14:00	<Samp	<Samp
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23/08/2023 16:00	45.77	12.22
23/08/2023 17:00	45.91	12.21
23/08/2023 18:00	46.22	12.22
23/08/2023 19:00	46.16	12.23
23/08/2023 20:00	45.64	12.24

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
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23/08/2023 22:00	45.42	12.22
23/08/2023 23:00	33.35	12.91
24/08/2023 00:00	26.71	13.13
24/08/2023 01:00	27.32	13.15
24/08/2023 02:00	27.48	13.16
24/08/2023 03:00	27.73	13.17
24/08/2023 04:00	27.62	13.17
24/08/2023 05:00	27.6	13.17
24/08/2023 06:00	27.55	13.16
24/08/2023 07:00	27.12	13.15
24/08/2023 08:00	26.82	13.14
24/08/2023 09:00	37.36	12.61
24/08/2023 10:00	45.26	12.2
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24/08/2023 12:00	45.57	12.17
24/08/2023 13:00	45.56	12.18
24/08/2023 14:00	45.32	12.18
24/08/2023 15:00	45.61	12.17
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24/08/2023 18:00	46.11	12.23
24/08/2023 19:00	46.18	12.24
24/08/2023 20:00	45.55	12.24
24/08/2023 21:00	45.06	12.26
24/08/2023 22:00	44.66	12.27
24/08/2023 23:00	33.99	12.97
25/08/2023 00:00	27.77	13.13
25/08/2023 01:00	27.66	13.12
25/08/2023 02:00	27.74	13.12
25/08/2023 03:00	27.73	13.12
25/08/2023 04:00	27.5	13.12
25/08/2023 05:00	27.75	13.14
25/08/2023 06:00	27.71	13.13

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
25/08/2023 07:00	27.49	13.13
25/08/2023 08:00	27.91	13.17
25/08/2023 09:00	38.04	12.73
25/08/2023 10:00	45.52	12.22
25/08/2023 11:00	45.59	12.21
25/08/2023 12:00	45.57	12.17
25/08/2023 13:00	45.57	12.17
25/08/2023 14:00	45.48	12.17
25/08/2023 15:00	45.63	12.16
25/08/2023 16:00	46.08	12.21
25/08/2023 17:00	46.04	12.25
25/08/2023 18:00	46.02	12.25
25/08/2023 19:00	45.61	12.25
25/08/2023 20:00	45.76	12.24
25/08/2023 21:00	44.82	12.27
25/08/2023 22:00	44.49	12.28
25/08/2023 23:00	33.92	12.96
26/08/2023 00:00	27.68	13.12
26/08/2023 01:00	27.55	13.11
26/08/2023 02:00	27.47	13.11
26/08/2023 03:00	27.52	13.1
26/08/2023 04:00	27.38	13.11
26/08/2023 05:00	27.49	13.11
26/08/2023 06:00	27.53	13.11
26/08/2023 07:00	27.09	13.13
26/08/2023 08:00	28.03	13.17
26/08/2023 09:00	37.99	12.61
26/08/2023 10:00	45.77	12.22
26/08/2023 11:00	45.6	12.22
26/08/2023 12:00	45.75	12.21
26/08/2023 13:00	45.79	12.19
26/08/2023 14:00	45.79	12.2
26/08/2023 15:00	45.74	12.19
26/08/2023 16:00	45.93	12.19

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
26/08/2023 17:00	46.03	12.22
26/08/2023 18:00	46.08	12.25
26/08/2023 19:00	45.78	12.27
26/08/2023 20:00	45.42	12.29
26/08/2023 21:00	45.38	12.28
26/08/2023 22:00	45.27	12.28
26/08/2023 23:00	33.44	12.96
27/08/2023 00:00	26.65	13.12
27/08/2023 01:00	26.93	13.14
27/08/2023 02:00	27.31	13.14
27/08/2023 03:00	27.3	13.15
27/08/2023 04:00	27.27	13.13
27/08/2023 05:00	27.05	13.13
27/08/2023 06:00	27.02	13.13
27/08/2023 07:00	27.02	13.15
27/08/2023 08:00	27.25	13.17
27/08/2023 09:00	27.72	13.18
27/08/2023 10:00	27.27	13.16
27/08/2023 11:00	27.87	13.21
27/08/2023 12:00	30.23	13.16
27/08/2023 13:00	32.7	13.1
27/08/2023 14:00	28.3	13.23
27/08/2023 15:00	28.66	13.25
27/08/2023 16:00	28.35	13.26
27/08/2023 17:00	28.25	13.26
27/08/2023 18:00	42.3	12.42
27/08/2023 19:00	45.57	12.23
27/08/2023 20:00	45.69	12.23
27/08/2023 21:00	45.62	12.23
27/08/2023 22:00	37.77	12.72
27/08/2023 23:00	25.86	13.11
28/08/2023 00:00	26.29	13.12
28/08/2023 01:00	26.33	13.13
28/08/2023 02:00	27.11	13.16

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
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28/08/2023 04:00	27.32	13.18
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28/08/2023 06:00	27.53	13.18
28/08/2023 07:00	27.46	13.17
28/08/2023 08:00	27.9	13.2
28/08/2023 09:00	37.72	12.62
28/08/2023 10:00	45.38	12.18
28/08/2023 11:00	45.65	12.17
28/08/2023 12:00	45.62	12.16
28/08/2023 13:00	45.8	12.16
28/08/2023 14:00	45.11	12.16
28/08/2023 15:00	45.49	12.16
28/08/2023 16:00	45.88	12.17
28/08/2023 17:00	46.31	12.21
28/08/2023 18:00	46.52	12.22
28/08/2023 19:00	46.26	12.23
28/08/2023 20:00	46.08	12.23
28/08/2023 21:00	46.23	12.23
28/08/2023 22:00	45.95	12.22
28/08/2023 23:00	33.27	12.93
29/08/2023 00:00	26.18	13.11
29/08/2023 01:00	26.55	13.14
29/08/2023 02:00	27.3	13.18
29/08/2023 03:00	27.8	13.19
29/08/2023 04:00	27.8	13.19
29/08/2023 05:00	27.87	13.19
29/08/2023 06:00	27.68	13.18
29/08/2023 07:00	27.29	13.16
29/08/2023 08:00	27.32	13.18
29/08/2023 09:00	37.32	12.62
29/08/2023 10:00	45.01	12.18
29/08/2023 11:00	45.37	12.17
29/08/2023 12:00	45.58	12.16

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
29/08/2023 13:00	45.91	12.14
29/08/2023 14:00	45.97	12.15
29/08/2023 15:00	46.34	12.18
29/08/2023 16:00	46.01	12.21
29/08/2023 17:00	46.01	12.21
29/08/2023 18:00	46.15	12.2
29/08/2023 19:00	46.08	12.21
29/08/2023 20:00	45.77	12.2
29/08/2023 21:00	45.31	12.22
29/08/2023 22:00	45.72	12.23
29/08/2023 23:00	33.05	12.95
30/08/2023 00:00	26.51	13.13
30/08/2023 01:00	27.08	13.15
30/08/2023 02:00	27.03	13.15
30/08/2023 03:00	27.11	13.17
30/08/2023 04:00	27.34	13.17
30/08/2023 05:00	27.11	13.17
30/08/2023 06:00	27.01	13.16
30/08/2023 07:00	27.3	13.18
30/08/2023 08:00	27.18	13.18
30/08/2023 09:00	36.89	12.6
30/08/2023 10:00	45.46	12.18
30/08/2023 11:00	45.83	12.18
30/08/2023 12:00	45.77	12.18
30/08/2023 13:00	45.7	12.17
30/08/2023 14:00	45.79	12.19
30/08/2023 15:00	45.81	12.22
30/08/2023 16:00	45.88	12.22
30/08/2023 17:00	46.09	12.22
30/08/2023 18:00	46.17	12.22
30/08/2023 19:00	46.17	12.23
30/08/2023 20:00	46.15	12.23
30/08/2023 21:00	45.85	12.24
30/08/2023 22:00	46.1	12.23

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
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31/08/2023 02:00	27.13	13.15
31/08/2023 03:00	27.26	13.17
31/08/2023 04:00	27.47	13.18
31/08/2023 05:00	27.53	13.18
31/08/2023 06:00	27.52	13.18
31/08/2023 07:00	27.53	13.19
31/08/2023 08:00	27.46	13.19
31/08/2023 09:00	37.75	12.63
31/08/2023 10:00	45.96	12.19
31/08/2023 11:00	45.87	12.18
31/08/2023 12:00	45.9	12.17
31/08/2023 13:00	46.08	12.2
31/08/2023 14:00	46.06	12.19
31/08/2023 15:00	45.83	12.17
31/08/2023 16:00	45.71	12.17
31/08/2023 17:00	45.6	12.17
31/08/2023 18:00	46.18	12.21
31/08/2023 19:00	46.19	12.21
31/08/2023 20:00	46.29	12.22
31/08/2023 21:00	45.52	12.24
31/08/2023 22:00	45.32	12.24
31/08/2023 23:00	33.8	12.93
01/09/2023 00:00	27.26	13.14
01/09/2023 01:00	27.25	13.14
01/09/2023 02:00	27.11	13.13
01/09/2023 03:00	27.28	13.12
01/09/2023 04:00	26.97	13.12
01/09/2023 05:00	26.91	13.11
01/09/2023 06:00	26.74	13.12
01/09/2023 07:00	26.54	13.11
01/09/2023 08:00	26.11	13.11

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
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01/09/2023 10:00	45.47	12.2
01/09/2023 11:00	45.43	12.18
01/09/2023 12:00	45.6	12.19
01/09/2023 13:00	45.45	12.16
01/09/2023 14:00	45.57	12.16
01/09/2023 15:00	45.55	12.16
01/09/2023 16:00	45.94	12.18
01/09/2023 17:00	45.96	12.2
01/09/2023 18:00	46.11	12.23
01/09/2023 19:00	46.3	12.23
01/09/2023 20:00	46.25	12.23
01/09/2023 21:00	46.21	12.23
01/09/2023 22:00	45.83	12.22
01/09/2023 23:00	33.52	12.91
02/09/2023 00:00	26.92	13.15
02/09/2023 01:00	27.31	13.16
02/09/2023 02:00	26.94	13.16
02/09/2023 03:00	26.91	13.15
02/09/2023 04:00	27.08	13.17
02/09/2023 05:00	27.34	13.17
02/09/2023 06:00	27.15	13.17
02/09/2023 07:00	26.91	13.16
02/09/2023 08:00	27.21	13.18
02/09/2023 09:00	37.7	12.73
02/09/2023 10:00	45.69	12.18
02/09/2023 11:00	45.77	12.17
02/09/2023 12:00	45.69	12.16
02/09/2023 13:00	45.78	12.13
02/09/2023 14:00	45.76	12.12
02/09/2023 15:00	46.12	12.15
02/09/2023 16:00	46.08	12.16
02/09/2023 17:00	46.31	12.19
02/09/2023 18:00	46.26	12.22

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
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02/09/2023 20:00	46.26	12.22
02/09/2023 21:00	46	12.22
02/09/2023 22:00	45.76	12.23
02/09/2023 23:00	33.29	12.96
03/09/2023 00:00	27.57	13.19
03/09/2023 01:00	27.85	13.19
03/09/2023 02:00	27.76	13.19
03/09/2023 03:00	27.59	13.19
03/09/2023 04:00	27.71	13.19
03/09/2023 05:00	27.6	13.18
03/09/2023 06:00	27.18	13.16
03/09/2023 07:00	27.28	13.18
03/09/2023 08:00	27.03	13.19
03/09/2023 09:00	27.36	13.18
03/09/2023 10:00	27.21	13.19
03/09/2023 11:00	27.21	13.2
03/09/2023 12:00	27.13	13.2
03/09/2023 13:00	27.1	13.2
03/09/2023 14:00	27.23	13.21
03/09/2023 15:00	27.33	13.22
03/09/2023 16:00	27.26	13.23
03/09/2023 17:00	27.29	13.23
03/09/2023 18:00	42.09	12.51
03/09/2023 19:00	45.69	12.21
03/09/2023 20:00	45.85	12.21
03/09/2023 21:00	45.52	12.21
03/09/2023 22:00	37.83	12.72
03/09/2023 23:00	26.28	13.15
04/09/2023 00:00	27.18	13.19
04/09/2023 01:00	27.21	13.2
04/09/2023 02:00	27.39	13.2
04/09/2023 03:00	26.86	13.18
04/09/2023 04:00	26.83	13.17

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
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04/09/2023 06:00	27.14	13.17
04/09/2023 07:00	26.89	13.18
04/09/2023 08:00	27.44	13.21
04/09/2023 09:00	37.15	12.59
04/09/2023 10:00	45.28	12.17
04/09/2023 11:00	45.39	12.17
04/09/2023 12:00	45.24	12.14
04/09/2023 13:00	45.35	12.13
04/09/2023 14:00	45.15	12.14
04/09/2023 15:00	45.44	12.16
04/09/2023 16:00	45.5	12.18
04/09/2023 17:00	45.88	12.23
04/09/2023 18:00	45.94	12.23
04/09/2023 19:00	45.93	12.24
04/09/2023 20:00	45.86	12.23
04/09/2023 21:00	45.79	12.23
04/09/2023 22:00	45.68	12.22
04/09/2023 23:00	32.82	12.95
05/09/2023 00:00	27.03	13.17
05/09/2023 01:00	27.43	13.2
05/09/2023 02:00	27.22	13.2
05/09/2023 03:00	27.51	13.2
05/09/2023 04:00	27.65	13.2
05/09/2023 05:00	27.8	13.21
05/09/2023 06:00	27.7	13.21
05/09/2023 07:00	27.45	13.2
05/09/2023 08:00	28.04	13.23
05/09/2023 09:00	37.86	12.62
05/09/2023 10:00	45.2	12.2
05/09/2023 11:00	45.48	12.21
05/09/2023 12:00	45.28	12.19
05/09/2023 13:00	45.06	12.15
05/09/2023 14:00	45.12	12.17

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
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05/09/2023 16:00	45.71	12.2
05/09/2023 17:00	46	12.22
05/09/2023 18:00	45.85	12.23
05/09/2023 19:00	45.84	12.23
05/09/2023 20:00	45.56	12.23
05/09/2023 21:00	45.45	12.24
05/09/2023 22:00	45.21	12.24
05/09/2023 23:00	33.34	12.96
06/09/2023 00:00	27.12	13.17
06/09/2023 01:00	27.53	13.18
06/09/2023 02:00	27.65	13.18
06/09/2023 03:00	27.68	13.19
06/09/2023 04:00	27.76	13.19
06/09/2023 05:00	27.85	13.2
06/09/2023 06:00	27.85	13.19
06/09/2023 07:00	27.29	13.17
06/09/2023 08:00	27.15	13.17
06/09/2023 09:00	37.33	12.73
06/09/2023 10:00	45.35	12.2
06/09/2023 11:00	45.37	12.2
06/09/2023 12:00	45.22	12.19
06/09/2023 13:00	45.06	12.18
06/09/2023 14:00	45.15	12.21
06/09/2023 15:00	45.56	12.19
06/09/2023 16:00	45.43	12.23
06/09/2023 17:00	45.46	12.22
06/09/2023 18:00	45.43	12.23
06/09/2023 19:00	45.34	12.24
06/09/2023 20:00	45.17	12.28
06/09/2023 21:00	45.62	12.3
06/09/2023 22:00	45.51	12.29
06/09/2023 23:00	33.02	12.96
07/09/2023 00:00	26.77	13.12

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
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07/09/2023 02:00	27.03	13.14
07/09/2023 03:00	26.69	13.13
07/09/2023 04:00	26.52	13.12
07/09/2023 05:00	26.65	13.12
07/09/2023 06:00	26.5	13.13
07/09/2023 07:00	26.83	13.15
07/09/2023 08:00	27.2	13.18
07/09/2023 09:00	37.28	12.73
07/09/2023 10:00	44.55	12.22
07/09/2023 11:00	45.02	12.23
07/09/2023 12:00	45.06	12.23
07/09/2023 13:00	45.22	12.2
07/09/2023 14:00	44.84	12.17
07/09/2023 15:00	45.27	12.17
07/09/2023 16:00	45.24	12.19
07/09/2023 17:00	45.56	12.21
07/09/2023 18:00	45.62	12.22
07/09/2023 19:00	45.56	12.23
07/09/2023 20:00	45.3	12.24
07/09/2023 21:00	45.11	12.24
07/09/2023 22:00	45.19	12.23
07/09/2023 23:00	32.91	12.9
08/09/2023 00:00	26.27	13.11
08/09/2023 01:00	25.96	13.11
08/09/2023 02:00	26.23	13.12
08/09/2023 03:00	26.51	13.13
08/09/2023 04:00	26.96	13.16
08/09/2023 05:00	26.84	13.15
08/09/2023 06:00	26.51	13.14
08/09/2023 07:00	26.92	13.15
08/09/2023 08:00	26.67	13.14
08/09/2023 09:00	37.28	12.61
08/09/2023 10:00	45.06	12.2

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
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08/09/2023 12:00	45.09	12.18
08/09/2023 13:00	45.23	12.17
08/09/2023 14:00	44.94	12.17
08/09/2023 15:00	44.96	12.17
08/09/2023 16:00	45.08	12.19
08/09/2023 17:00	45.61	12.23
08/09/2023 18:00	45.67	12.24
08/09/2023 19:00	45.78	12.24
08/09/2023 20:00	45.65	12.25
08/09/2023 21:00	44.95	12.26
08/09/2023 22:00	44.8	12.26
08/09/2023 23:00	33.98	12.95
09/09/2023 00:00	27.21	13.14
09/09/2023 01:00	27.02	13.13
09/09/2023 02:00	26.93	13.12
09/09/2023 03:00	26.74	13.12
09/09/2023 04:00	26.72	13.12
09/09/2023 05:00	26.83	13.12
09/09/2023 06:00	26.64	13.12
09/09/2023 07:00	26.42	13.13
09/09/2023 08:00	26.97	13.17
09/09/2023 09:00	37.29	12.61
09/09/2023 10:00	44.89	12.18
09/09/2023 11:00	45.31	12.18
09/09/2023 12:00	45.09	12.17
09/09/2023 13:00	45.19	12.16
09/09/2023 14:00	45.15	12.15
09/09/2023 15:00	45.03	12.14
09/09/2023 16:00	45.3	12.16
09/09/2023 17:00	45.68	12.2
09/09/2023 18:00	45.92	12.24
09/09/2023 19:00	45.88	12.23
09/09/2023 20:00	45.79	12.23

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
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09/09/2023 22:00	45.36	12.23
09/09/2023 23:00	32.79	12.95
10/09/2023 00:00	26.89	13.18
10/09/2023 01:00	27.3	13.19
10/09/2023 02:00	26.94	13.19
10/09/2023 03:00	27.15	13.19
10/09/2023 04:00	27.11	13.19
10/09/2023 05:00	27.1	13.17
10/09/2023 06:00	26.83	13.16
10/09/2023 07:00	26.82	13.17
10/09/2023 08:00	26.95	13.18
10/09/2023 09:00	27.09	13.19
10/09/2023 10:00	27.18	13.2
10/09/2023 11:00	26.95	13.2
10/09/2023 12:00	27.31	13.2
10/09/2023 13:00	27.19	13.2
10/09/2023 14:00	27.1	13.2
10/09/2023 15:00	27.09	13.21
10/09/2023 16:00	26.76	13.2
10/09/2023 17:00	26.58	13.2
10/09/2023 18:00	42.17	12.42
10/09/2023 19:00	45.71	12.28
10/09/2023 20:00	45.77	12.28
10/09/2023 21:00	45.97	12.28
10/09/2023 22:00	37.68	12.74
10/09/2023 23:00	26.84	13.16
11/09/2023 00:00	27.29	13.19
11/09/2023 01:00	27.63	13.2
11/09/2023 02:00	27.89	13.21
11/09/2023 03:00	27.68	13.2
11/09/2023 04:00	27.95	13.2
11/09/2023 05:00	28.01	13.21
11/09/2023 06:00	27.96	13.19

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
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11/09/2023 08:00	27.54	13.2
11/09/2023 09:00	37.79	12.65
11/09/2023 10:00	45.28	12.29
11/09/2023 11:00	45.06	12.27
11/09/2023 12:00	45.13	12.26
11/09/2023 13:00	45.09	12.25
11/09/2023 14:00	45.05	12.25
11/09/2023 15:00	45.28	12.24
11/09/2023 16:00	45.38	12.25
11/09/2023 17:00	45.63	12.26
11/09/2023 18:00	45.49	12.28
11/09/2023 19:00	45.43	12.28
11/09/2023 20:00	45.24	12.29
11/09/2023 21:00	45.41	12.29
11/09/2023 22:00	45.27	12.29
11/09/2023 23:00	32.89	12.96
12/09/2023 00:00	27.71	13.19
12/09/2023 01:00	27.58	13.19
12/09/2023 02:00	27.42	13.18
12/09/2023 03:00	27.35	13.19
12/09/2023 04:00	27.67	13.19
12/09/2023 05:00	27.65	13.19
12/09/2023 06:00	27.68	13.19
12/09/2023 07:00	27.51	13.19
12/09/2023 08:00	27.5	13.19
12/09/2023 09:00	37.8	12.65
12/09/2023 10:00	45.62	12.27
12/09/2023 11:00	45.39	12.27
12/09/2023 12:00	45.24	12.25
12/09/2023 13:00	45.12	12.25
12/09/2023 14:00	44.99	12.27
12/09/2023 15:00	45.29	12.28
12/09/2023 16:00	45.33	12.3

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
12/09/2023 17:00	45.57	12.31
12/09/2023 18:00	45.72	12.31
12/09/2023 19:00	45.85	12.31
12/09/2023 20:00	45.66	12.3
12/09/2023 21:00	45.82	12.31
12/09/2023 22:00	45.49	12.3
12/09/2023 23:00	33.11	12.98
13/09/2023 00:00	27.73	13.18
13/09/2023 01:00	27.93	13.18
13/09/2023 02:00	27.82	13.2
13/09/2023 03:00	27.42	13.17
13/09/2023 04:00	27.62	13.18
13/09/2023 05:00	27.63	13.18
13/09/2023 06:00	27.98	13.2
13/09/2023 07:00	27.87	13.21
13/09/2023 08:00	28.37	13.23
13/09/2023 09:00	38.27	12.65
13/09/2023 10:00	45.19	12.28
13/09/2023 11:00	45.08	12.29
13/09/2023 12:00	45.24	12.29
13/09/2023 13:00	45.28	12.28
13/09/2023 14:00	45.1	12.28
13/09/2023 15:00	45.17	12.26
13/09/2023 16:00	45.32	12.26
13/09/2023 17:00	45.3	12.25
13/09/2023 18:00	45.45	12.26
13/09/2023 19:00	45.32	12.26
13/09/2023 20:00	45.39	12.27
13/09/2023 21:00	45.21	12.28
13/09/2023 22:00	45.15	12.28
13/09/2023 23:00	32.65	12.96
14/09/2023 00:00	25.98	13.12
14/09/2023 01:00	25.96	13.12
14/09/2023 02:00	26.32	13.13

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
14/09/2023 03:00	26.44	13.13
14/09/2023 04:00	26.46	13.14
14/09/2023 05:00	26.61	13.14
14/09/2023 06:00	26.57	13.15
14/09/2023 07:00	26.19	13.15
14/09/2023 08:00	26.48	13.16
14/09/2023 09:00	37.13	12.64
14/09/2023 10:00	45.08	12.27
14/09/2023 11:00	44.76	12.24
14/09/2023 12:00	44.76	12.23
14/09/2023 13:00	44.83	12.22
14/09/2023 14:00	44.91	12.23
14/09/2023 15:00	45.15	12.23
14/09/2023 16:00	45.44	12.25
14/09/2023 17:00	45.34	12.26
14/09/2023 18:00	45.49	12.3
14/09/2023 19:00	45.15	12.29
14/09/2023 20:00	45.31	12.32
14/09/2023 21:00	45.62	12.34
14/09/2023 22:00	45.36	12.32
14/09/2023 23:00	33.73	12.98
15/09/2023 00:00	27.49	13.12
15/09/2023 01:00	27.34	13.11
15/09/2023 02:00	27.02	13.09
15/09/2023 03:00	26.33	13.09
15/09/2023 04:00	26.38	13.1
15/09/2023 05:00	26.54	13.12
15/09/2023 06:00	26.5	13.13
15/09/2023 07:00	26.34	13.12
15/09/2023 08:00	26.07	13.13
15/09/2023 09:00	37.03	12.64
15/09/2023 10:00	44.73	12.24
15/09/2023 11:00	44.58	12.24
15/09/2023 12:00	44.68	12.24

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
15/09/2023 13:00	44.58	12.23
15/09/2023 14:00	44.52	12.21
15/09/2023 15:00	44.89	12.22
15/09/2023 16:00	44.92	12.24
15/09/2023 17:00	45.28	12.25
15/09/2023 18:00	45.16	12.26
15/09/2023 19:00	45.32	12.25
15/09/2023 20:00	45.16	12.28
15/09/2023 21:00	45.29	12.29
15/09/2023 22:00	45.44	12.29
15/09/2023 23:00	33.28	12.95
16/09/2023 00:00	26.81	13.15
16/09/2023 01:00	26.9	13.15
16/09/2023 02:00	26.89	13.15
16/09/2023 03:00	26.85	13.16
16/09/2023 04:00	26.85	13.14
16/09/2023 05:00	26.45	13.15
16/09/2023 06:00	26.35	13.15
16/09/2023 07:00	26.2	13.16
16/09/2023 08:00	26.76	13.18
16/09/2023 09:00	37.37	12.64
16/09/2023 10:00	44.94	12.23
16/09/2023 11:00	44.93	12.21
16/09/2023 12:00	44.96	12.22
16/09/2023 13:00	45.01	12.22
16/09/2023 14:00	44.87	12.23
16/09/2023 15:00	45.25	12.21
16/09/2023 16:00	45.21	12.23
16/09/2023 17:00	45.07	12.24
16/09/2023 18:00	45.22	12.27
16/09/2023 19:00	45.32	12.29
16/09/2023 20:00	45.45	12.28
16/09/2023 21:00	45.02	12.3
16/09/2023 22:00	45	12.28

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
16/09/2023 23:00	32.31	12.94
17/09/2023 00:00	26.65	13.14
17/09/2023 01:00	27.16	13.17
17/09/2023 02:00	27.1	13.18
17/09/2023 03:00	26.87	13.16
17/09/2023 04:00	26.36	13.15
17/09/2023 05:00	26.61	13.16
17/09/2023 06:00	26.53	13.17
17/09/2023 07:00	26.74	13.18
17/09/2023 08:00	26.53	13.18
17/09/2023 09:00	26.71	13.19
17/09/2023 10:00	26.91	13.2
17/09/2023 11:00	26.68	13.19
17/09/2023 12:00	26.8	13.19
17/09/2023 13:00	26.72	13.19
17/09/2023 14:00	26.24	13.17
17/09/2023 15:00	26.52	13.2
17/09/2023 16:00	26.79	13.21
17/09/2023 17:00	26.74	13.21
17/09/2023 18:00	41.89	12.44
17/09/2023 19:00	45.33	12.29
17/09/2023 20:00	45.04	12.29
17/09/2023 21:00	45.09	12.28
17/09/2023 22:00	36.61	12.73
17/09/2023 23:00	25.92	13.13
18/09/2023 00:00	26.2	13.14
18/09/2023 01:00	26.44	13.15
18/09/2023 02:00	26.75	13.15
18/09/2023 03:00	26.41	13.14
18/09/2023 04:00	26.55	13.13
18/09/2023 05:00	26.48	13.14
18/09/2023 06:00	26.45	13.13
18/09/2023 07:00	26.15	13.13
18/09/2023 08:00	26.27	13.13

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
18/09/2023 09:00	36.54	12.72
18/09/2023 10:00	44.84	12.23
18/09/2023 11:00	44.75	12.23
18/09/2023 12:00	45.23	12.25
18/09/2023 13:00	45.2	12.25
18/09/2023 14:00	45	12.25
18/09/2023 15:00	45.02	12.26
18/09/2023 16:00	45.38	12.26
18/09/2023 17:00	45.65	12.26
18/09/2023 18:00	45.37	12.28
18/09/2023 19:00	45.32	12.28
18/09/2023 20:00	45.41	12.28
18/09/2023 21:00	45.03	12.3
18/09/2023 22:00	45.2	12.3
18/09/2023 23:00	32.2	12.96
19/09/2023 00:00	26.22	13.11
19/09/2023 01:00	26.36	13.11
19/09/2023 02:00	26.46	13.11
19/09/2023 03:00	26.5	13.12
19/09/2023 04:00	26.35	13.11
19/09/2023 05:00	26.22	13.11
19/09/2023 06:00	26.32	13.12
19/09/2023 07:00	25.99	13.11
19/09/2023 08:00	26.14	13.13
19/09/2023 09:00	37.32	12.63
19/09/2023 10:00	44.95	12.26
19/09/2023 11:00	44.92	12.24
19/09/2023 12:00	44.97	12.24
19/09/2023 13:00	45	12.24
19/09/2023 14:00	44.69	12.2
19/09/2023 15:00	44.59	12.18
19/09/2023 16:00	45.03	12.2
19/09/2023 17:00	45.29	12.24
19/09/2023 18:00	45.63	12.27

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
19/09/2023 19:00	45.49	12.28
19/09/2023 20:00	45.52	12.29
19/09/2023 21:00	45.53	12.29
19/09/2023 22:00	45.41	12.29
19/09/2023 23:00	32.57	12.95
20/09/2023 00:00	26.05	13.1
20/09/2023 01:00	26.37	13.1
20/09/2023 02:00	26.06	13.1
20/09/2023 03:00	26.24	13.1
20/09/2023 04:00	26.33	13.11
20/09/2023 05:00	26.36	13.11
20/09/2023 06:00	26.04	13.12
20/09/2023 07:00	25.98	13.11
20/09/2023 08:00	25.64	13.12
20/09/2023 09:00	36.72	12.61
20/09/2023 10:00	45.09	12.23
20/09/2023 11:00	44.89	12.23
20/09/2023 12:00	44.68	12.22
20/09/2023 13:00	44.36	12.17
20/09/2023 14:00	45.29	12.26
20/09/2023 15:00	45.79	12.36
20/09/2023 16:00	45.56	12.33
20/09/2023 17:00	45.5	12.3
20/09/2023 18:00	45.27	12.28
20/09/2023 19:00	45.34	12.29
20/09/2023 20:00	45.57	12.29
20/09/2023 21:00	45.44	12.29
20/09/2023 22:00	45.3	12.28
20/09/2023 23:00	32.86	12.94
21/09/2023 00:00	26.77	13.12
21/09/2023 01:00	27.29	13.13
21/09/2023 02:00	26.7	13.13
21/09/2023 03:00	26.49	13.13
21/09/2023 04:00	26.3	13.12

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
21/09/2023 05:00	26.38	13.12
21/09/2023 06:00	26.34	13.13
21/09/2023 07:00	26.59	13.14
21/09/2023 08:00	26.57	13.14
21/09/2023 09:00	37.16	12.63
21/09/2023 10:00	44.88	12.27
21/09/2023 11:00	44.59	12.25
21/09/2023 12:00	44.58	12.21
21/09/2023 13:00	44.47	12.17
21/09/2023 14:00	44.5	12.15
21/09/2023 15:00	45.27	12.28
21/09/2023 16:00	45.53	12.33
21/09/2023 17:00	45.3	12.34
21/09/2023 18:00	45.51	12.36
21/09/2023 19:00	45.16	12.36
21/09/2023 20:00	44.94	12.34
21/09/2023 21:00	44.96	12.34
21/09/2023 22:00	45.08	12.34
21/09/2023 23:00	33.26	12.96
22/09/2023 00:00	27.55	13.11
22/09/2023 01:00	27.46	13.1
22/09/2023 02:00	27.27	13.1
22/09/2023 03:00	26.75	13.1
22/09/2023 04:00	26.72	13.1
22/09/2023 05:00	26.41	13.11
22/09/2023 06:00	26.65	13.11
22/09/2023 07:00	26.47	13.12
22/09/2023 08:00	26.39	13.13
22/09/2023 09:00	36.75	12.73
22/09/2023 10:00	44.59	12.28
22/09/2023 11:00	44.44	12.26
22/09/2023 12:00	44.36	12.23
22/09/2023 13:00	44.49	12.21
22/09/2023 14:00	44.27	12.21

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
22/09/2023 15:00	44.7	12.19
22/09/2023 16:00	44.87	12.21
22/09/2023 17:00	44.98	12.26
22/09/2023 18:00	45.24	12.27
22/09/2023 19:00	45.1	12.28
22/09/2023 20:00	45.26	12.3
22/09/2023 21:00	45.13	12.31
22/09/2023 22:00	45.03	12.3
22/09/2023 23:00	32.19	12.94
23/09/2023 00:00	25.66	13.1
23/09/2023 01:00	25.53	13.1
23/09/2023 02:00	25.83	13.1
23/09/2023 03:00	25.68	13.11
23/09/2023 04:00	25.69	13.11
23/09/2023 05:00	25.75	13.12
23/09/2023 06:00	25.68	13.12
23/09/2023 07:00	25.63	13.11
23/09/2023 08:00	25.35	13.11
23/09/2023 09:00	36.67	12.62
23/09/2023 10:00	44.63	12.24
23/09/2023 11:00	44.54	12.22
23/09/2023 12:00	44.57	12.2
23/09/2023 13:00	44.71	12.2
23/09/2023 14:00	44.84	12.21
23/09/2023 15:00	44.65	12.2
23/09/2023 16:00	44.81	12.21
23/09/2023 17:00	45.29	12.24
23/09/2023 18:00	45.53	12.29
23/09/2023 19:00	45.49	12.3
23/09/2023 20:00	45.4	12.32
23/09/2023 21:00	45.19	12.31
23/09/2023 22:00	45.28	12.31
23/09/2023 23:00	31.91	12.95
24/09/2023 00:00	25.87	13.1

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
24/09/2023 01:00	25.9	13.1
24/09/2023 02:00	25.75	13.1
24/09/2023 03:00	25.54	13.1
24/09/2023 04:00	25.74	13.11
24/09/2023 05:00	25.64	13.11
24/09/2023 06:00	25.57	13.12
24/09/2023 07:00	25.35	13.12
24/09/2023 08:00	25.69	13.14
24/09/2023 09:00	25.95	13.15
24/09/2023 10:00	26.3	13.18
24/09/2023 11:00	26.03	13.16
24/09/2023 12:00	25.59	13.13
24/09/2023 13:00	25.1	13.12
24/09/2023 14:00	25.15	13.11
24/09/2023 15:00	25.96	13.13
24/09/2023 16:00	25.69	13.13
24/09/2023 17:00	25.4	13.14
24/09/2023 18:00	41	12.46
24/09/2023 19:00	44.92	12.24
24/09/2023 20:00	44.88	12.24
24/09/2023 21:00	44.99	12.24
24/09/2023 22:00	36.22	12.71
24/09/2023 23:00	25.58	13.09
25/09/2023 00:00	25.45	13.08
25/09/2023 01:00	25.49	13.09
25/09/2023 02:00	25.17	13.09
25/09/2023 03:00	24.88	13.1
25/09/2023 04:00	25.2	13.1
25/09/2023 05:00	25.26	13.11
25/09/2023 06:00	25.21	13.11
25/09/2023 07:00	25	13.11
25/09/2023 08:00	24.76	13.11
25/09/2023 09:00	35.79	12.67
25/09/2023 10:00	44.69	12.21

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
25/09/2023 11:00	44.72	12.19
25/09/2023 12:00	45.36	12.26
25/09/2023 13:00	45.45	12.27
25/09/2023 14:00	44.98	12.22
25/09/2023 15:00	44.99	12.2
25/09/2023 16:00	44.97	12.21
25/09/2023 17:00	45.04	12.22
25/09/2023 18:00	44.84	12.21
25/09/2023 19:00	44.99	12.21
25/09/2023 20:00	44.86	12.21
25/09/2023 21:00	44.83	12.24
25/09/2023 22:00	44.76	12.23
25/09/2023 23:00	31.15	12.92
26/09/2023 00:00	25.58	13.09
26/09/2023 01:00	25.4	13.09
26/09/2023 02:00	25.18	13.1
26/09/2023 03:00	25.07	13.1
26/09/2023 04:00	25.21	13.1
26/09/2023 05:00	25.23	13.11
26/09/2023 06:00	25.07	13.11
26/09/2023 07:00	25.3	13.11
26/09/2023 08:00	25.28	13.12
26/09/2023 09:00	36.36	12.7
26/09/2023 10:00	44.73	12.26
26/09/2023 11:00	44.45	12.2
26/09/2023 12:00	44.66	12.16
26/09/2023 13:00	44.66	12.17
26/09/2023 14:00	44.62	12.2
26/09/2023 15:00	44.78	12.2
26/09/2023 16:00	44.74	12.2
26/09/2023 17:00	44.75	12.2
26/09/2023 18:00	45.06	12.22
26/09/2023 19:00	45.02	12.24
26/09/2023 20:00	44.88	12.24

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
26/09/2023 21:00	44.64	12.24
26/09/2023 22:00	44.61	12.24
26/09/2023 23:00	31.63	12.95
27/09/2023 00:00	25.89	13.14
27/09/2023 01:00	25.76	13.14
27/09/2023 02:00	25.89	13.14
27/09/2023 03:00	25.74	13.13
27/09/2023 04:00	25.77	13.13
27/09/2023 05:00	25.87	13.13
27/09/2023 06:00	25.71	13.13
27/09/2023 07:00	25.25	13.12
27/09/2023 08:00	25.35	13.12
27/09/2023 09:00	36.43	12.68
27/09/2023 10:00	44.96	12.25
27/09/2023 11:00	44.55	12.19
27/09/2023 12:00	44.6	12.15
27/09/2023 13:00	44.67	12.16
27/09/2023 14:00	44.52	12.19
27/09/2023 15:00	44.89	12.2
27/09/2023 16:00	44.91	12.21
27/09/2023 17:00	44.92	12.21
27/09/2023 18:00	44.99	12.24
27/09/2023 19:00	44.93	12.25
27/09/2023 20:00	44.72	12.25
27/09/2023 21:00	44.72	12.25
27/09/2023 22:00	44.77	12.25
27/09/2023 23:00	31.47	12.95
28/09/2023 00:00	26.05	13.14
28/09/2023 01:00	26.43	13.16
28/09/2023 02:00	26.52	13.17
28/09/2023 03:00	26.23	13.17
28/09/2023 04:00	26.44	13.18
28/09/2023 05:00	26.51	13.18
28/09/2023 06:00	26.32	13.18

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
28/09/2023 07:00	26.49	13.18
28/09/2023 08:00	26.39	13.18
28/09/2023 09:00	31.3	12.98
28/09/2023 10:00	Maintenance_DIW	Maintenance_DIW
28/09/2023 11:00	46.64	12.48
28/09/2023 12:00	46.29	12.53
28/09/2023 13:00	45.96	12.49
28/09/2023 14:00	45.74	12.47
28/09/2023 15:00	45.99	12.49
28/09/2023 16:00	46.17	12.51
28/09/2023 17:00	46.18	12.52
28/09/2023 18:00	46.27	12.54
28/09/2023 19:00	46.4	12.54
28/09/2023 20:00	46.6	12.58
28/09/2023 21:00	46.43	12.58
28/09/2023 22:00	46.6	12.57
28/09/2023 23:00	33.96	13.24
29/09/2023 00:00	28.04	13.39
29/09/2023 01:00	27.55	13.38
29/09/2023 02:00	27.41	13.38
29/09/2023 03:00	27.23	13.37
29/09/2023 04:00	27.17	13.37
29/09/2023 05:00	27.34	13.38
29/09/2023 06:00	27.36	13.38
29/09/2023 07:00	27.18	13.38
29/09/2023 08:00	27.2	13.39
29/09/2023 09:00	37.77	12.94
29/09/2023 10:00	46.05	12.52
29/09/2023 11:00	46.01	12.51
29/09/2023 12:00	45.91	12.53
29/09/2023 13:00	46.03	12.53
29/09/2023 14:00	45.78	12.51
29/09/2023 15:00	45.73	12.5
29/09/2023 16:00	46.4	12.51

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
29/09/2023 17:00	46.33	12.52
29/09/2023 18:00	46.13	12.55
29/09/2023 19:00	45.31	12.59
29/09/2023 20:00	45.54	12.6
29/09/2023 21:00	45.93	12.6
29/09/2023 22:00	45.87	12.6
29/09/2023 23:00	33.28	13.22
30/09/2023 00:00	27.38	13.38
30/09/2023 01:00	27.12	13.37
30/09/2023 02:00	26.82	13.36
30/09/2023 03:00	26.76	13.36
30/09/2023 04:00	26.8	13.36
30/09/2023 05:00	26.98	13.37
30/09/2023 06:00	27.22	13.38
30/09/2023 07:00	26.91	13.38
30/09/2023 08:00	26.86	13.4
30/09/2023 09:00	37.55	12.96
30/09/2023 10:00	46.15	12.55
30/09/2023 11:00	45.97	12.55
30/09/2023 12:00	45.8	12.53
30/09/2023 13:00	45.49	12.51
30/09/2023 14:00	45.39	12.49
30/09/2023 15:00	45.6	12.49
30/09/2023 16:00	45.75	12.52
30/09/2023 17:00	45.93	12.56
30/09/2023 18:00	46.02	12.57
30/09/2023 19:00	45.94	12.58
30/09/2023 20:00	46	12.59
30/09/2023 21:00	46	12.6
30/09/2023 22:00	45.92	12.59
30/09/2023 23:00	32.93	13.23
01/10/2023 00:00	27.04	13.4
01/10/2023 01:00	27.07	13.39
01/10/2023 02:00	27.04	13.39

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
01/10/2023 03:00	27.17	13.4
01/10/2023 04:00	26.96	13.38
01/10/2023 05:00	26.99	13.39
01/10/2023 06:00	26.97	13.39
01/10/2023 07:00	26.96	13.4
01/10/2023 08:00	27.01	13.41
01/10/2023 09:00	27.58	13.44
01/10/2023 10:00	27.7	13.46
01/10/2023 11:00	27.73	13.47
01/10/2023 12:00	27.29	13.47
01/10/2023 13:00	27.02	13.45
01/10/2023 14:00	26.72	13.43
01/10/2023 15:00	26.62	13.43
01/10/2023 16:00	26.71	13.43
01/10/2023 17:00	28.05	13.4
01/10/2023 18:00	45.74	12.51
01/10/2023 19:00	46.23	12.52
01/10/2023 20:00	46.17	12.51
01/10/2023 21:00	46.15	12.51
01/10/2023 22:00	46.27	12.55
01/10/2023 23:00	27.91	13.39
02/10/2023 00:00	26.59	13.38
02/10/2023 01:00	26.36	13.37
02/10/2023 02:00	27.24	13.39
02/10/2023 03:00	27.66	13.4
02/10/2023 04:00	27.79	13.4
02/10/2023 05:00	27.69	13.4
02/10/2023 06:00	27.64	13.4
02/10/2023 07:00	28.83	13.38
02/10/2023 08:00	46.4	12.55
02/10/2023 09:00	46.15	12.53
02/10/2023 10:00	45.84	12.52
02/10/2023 11:00	45.9	12.48
02/10/2023 12:00	46.11	12.49

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
02/10/2023 13:00	46.07	12.49
02/10/2023 14:00	45.68	12.48
02/10/2023 15:00	46.07	12.48
02/10/2023 16:00	46.16	12.49
02/10/2023 17:00	46.33	12.52
02/10/2023 18:00	46.44	12.54
02/10/2023 19:00	46.68	12.55
02/10/2023 20:00	46.63	12.59
02/10/2023 21:00	46.1	12.57
02/10/2023 22:00	46.07	12.55
02/10/2023 23:00	37.57	13.01
03/10/2023 00:00	26.84	13.39
03/10/2023 01:00	26.65	13.39
03/10/2023 02:00	26.82	13.38
03/10/2023 03:00	26.89	13.38
03/10/2023 04:00	26.9	13.39
03/10/2023 05:00	26.97	13.39
03/10/2023 06:00	26.86	13.39
03/10/2023 07:00	27.93	13.37
03/10/2023 08:00	45.97	12.53
03/10/2023 09:00	46.06	12.51
03/10/2023 10:00	45.96	12.48
03/10/2023 11:00	45.75	12.48
03/10/2023 12:00	46.71	12.55
03/10/2023 13:00	46.7	12.55
03/10/2023 14:00	46.46	12.54
03/10/2023 15:00	46.36	12.51
03/10/2023 16:00	46.11	12.49
03/10/2023 17:00	46.21	12.5
03/10/2023 18:00	46.45	12.51
03/10/2023 19:00	46.71	12.52
03/10/2023 20:00	46.82	12.55
03/10/2023 21:00	46.91	12.55
03/10/2023 22:00	46.87	12.55

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
03/10/2023 23:00	38.26	13.01
04/10/2023 00:00	27.81	13.39
04/10/2023 01:00	27.62	13.38
04/10/2023 02:00	27.9	13.38
04/10/2023 03:00	28.07	13.39
04/10/2023 04:00	27.91	13.39
04/10/2023 05:00	27.83	13.4
04/10/2023 06:00	27.88	13.4
04/10/2023 07:00	29.1	13.37
04/10/2023 08:00	46.25	12.56
04/10/2023 09:00	46.17	12.54
04/10/2023 10:00	46.09	12.53
04/10/2023 11:00	46.07	12.52
04/10/2023 12:00	46.22	12.52
04/10/2023 13:00	46.08	12.5
04/10/2023 14:00	45.78	12.49
04/10/2023 15:00	45.96	12.47
04/10/2023 16:00	46.13	12.49
04/10/2023 17:00	46.27	12.51
04/10/2023 18:00	46.54	12.55
04/10/2023 19:00	46.53	12.56
04/10/2023 20:00	46.56	12.56
04/10/2023 21:00	46.75	12.56
04/10/2023 22:00	46.74	12.55
04/10/2023 23:00	37.87	13.01
05/10/2023 00:00	26.92	13.38
05/10/2023 01:00	26.77	13.38
05/10/2023 02:00	26.76	13.37
05/10/2023 03:00	26.77	13.38
05/10/2023 04:00	26.81	13.38
05/10/2023 05:00	26.95	13.39
05/10/2023 06:00	26.8	13.39
05/10/2023 07:00	28.07	13.37
05/10/2023 08:00	46.06	12.53

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
05/10/2023 09:00	46.11	12.53
05/10/2023 10:00	45.91	12.51
05/10/2023 11:00	45.79	12.47
05/10/2023 12:00	45.86	12.48
05/10/2023 13:00	46.44	12.5
05/10/2023 14:00	46.3	12.51
05/10/2023 15:00	46.14	12.47
05/10/2023 16:00	46.05	12.46
05/10/2023 17:00	46.19	12.47
05/10/2023 18:00	46.33	12.49
05/10/2023 19:00	46.49	12.5
05/10/2023 20:00	46.57	12.53
05/10/2023 21:00	46.53	12.54
05/10/2023 22:00	46.39	12.54
05/10/2023 23:00	37.68	13
06/10/2023 00:00	26.67	13.38
06/10/2023 01:00	26.72	13.38
06/10/2023 02:00	26.7	13.38
06/10/2023 03:00	26.81	13.38
06/10/2023 04:00	26.86	13.38
06/10/2023 05:00	26.84	13.4
06/10/2023 06:00	26.96	13.41
06/10/2023 07:00	28	13.39
06/10/2023 08:00	45.75	12.52
06/10/2023 09:00	46.08	12.52
06/10/2023 10:00	46.03	12.5
06/10/2023 11:00	45.95	12.48
06/10/2023 12:00	45.76	12.46
06/10/2023 13:00	45.72	12.46
06/10/2023 14:00	45.79	12.5
06/10/2023 15:00	45.83	12.5
06/10/2023 16:00	45.92	12.5
06/10/2023 17:00	45.89	12.5
06/10/2023 18:00	45.96	12.52

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
06/10/2023 19:00	45.93	12.52
06/10/2023 20:00	46.05	12.54
06/10/2023 21:00	46.21	12.53
06/10/2023 22:00	46.15	12.55
06/10/2023 23:00	37.22	13.02
07/10/2023 00:00	26.1	13.39
07/10/2023 01:00	26.19	13.39
07/10/2023 02:00	26.57	13.4
07/10/2023 03:00	26.75	13.41
07/10/2023 04:00	26.92	13.43
07/10/2023 05:00	27.05	13.43
07/10/2023 06:00	26.98	13.42
07/10/2023 07:00	28.11	13.43
07/10/2023 08:00	45.33	12.6
07/10/2023 09:00	45.79	12.53
07/10/2023 10:00	45.76	12.53
07/10/2023 11:00	45.77	12.51
07/10/2023 12:00	46.17	12.52
07/10/2023 13:00	45.93	12.53
07/10/2023 14:00	45.86	12.52
07/10/2023 15:00	45.91	12.49
07/10/2023 16:00	46.1	12.5
07/10/2023 17:00	46.13	12.5
07/10/2023 18:00	46.13	12.52
07/10/2023 19:00	46.33	12.55
07/10/2023 20:00	46.36	12.58
07/10/2023 21:00	46.47	12.58
07/10/2023 22:00	46.03	12.64
07/10/2023 23:00	Maintenance_DIW	Maintenance_DIW
08/10/2023 00:00	Shutdown_DIW	Shutdown_DIW
08/10/2023 01:00	Shutdown_DIW	Shutdown_DIW
08/10/2023 02:00	Shutdown_DIW	Shutdown_DIW
08/10/2023 03:00	Shutdown_DIW	Shutdown_DIW
08/10/2023 04:00	Shutdown_DIW	Shutdown_DIW

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
08/10/2023 05:00	Shutdown_DIW	Shutdown_DIW
08/10/2023 06:00	Shutdown_DIW	Shutdown_DIW
08/10/2023 07:00	Shutdown_DIW	Shutdown_DIW
08/10/2023 08:00	Shutdown_DIW	Shutdown_DIW
08/10/2023 09:00	Shutdown_DIW	Shutdown_DIW
08/10/2023 10:00	Shutdown_DIW	Shutdown_DIW
08/10/2023 11:00	Shutdown_DIW	Shutdown_DIW
08/10/2023 12:00	Shutdown_DIW	Shutdown_DIW
08/10/2023 13:00	Shutdown_DIW	Shutdown_DIW
08/10/2023 14:00	Shutdown_DIW	Shutdown_DIW
08/10/2023 15:00	Shutdown_DIW	Shutdown_DIW
08/10/2023 16:00	Shutdown_DIW	Shutdown_DIW
08/10/2023 17:00	Shutdown_DIW	Shutdown_DIW
08/10/2023 18:00	Shutdown_DIW	Shutdown_DIW
08/10/2023 19:00	Shutdown_DIW	Shutdown_DIW
08/10/2023 20:00	Shutdown_DIW	Shutdown_DIW
08/10/2023 21:00	Shutdown_DIW	Shutdown_DIW
08/10/2023 22:00	Shutdown_DIW	Shutdown_DIW
08/10/2023 23:00	Shutdown_DIW	Shutdown_DIW
09/10/2023 00:00	Shutdown_DIW	Shutdown_DIW
09/10/2023 01:00	Shutdown_DIW	Shutdown_DIW
09/10/2023 02:00	Shutdown_DIW	Shutdown_DIW
09/10/2023 03:00	Shutdown_DIW	Shutdown_DIW
09/10/2023 04:00	Shutdown_DIW	Shutdown_DIW
09/10/2023 05:00	Shutdown_DIW	Shutdown_DIW
09/10/2023 06:00	Shutdown_DIW	Shutdown_DIW
09/10/2023 07:00	Shutdown_DIW	Shutdown_DIW
09/10/2023 08:00	Shutdown_DIW	Shutdown_DIW
09/10/2023 09:00	Shutdown_DIW	Shutdown_DIW
09/10/2023 10:00	Shutdown_DIW	Shutdown_DIW
09/10/2023 11:00	Shutdown_DIW	Shutdown_DIW
09/10/2023 12:00	Shutdown_DIW	Shutdown_DIW
09/10/2023 13:00	Shutdown_DIW	Shutdown_DIW
09/10/2023 14:00	Shutdown_DIW	Shutdown_DIW

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
09/10/2023 15:00	Shutdown_DIW	Shutdown_DIW
09/10/2023 16:00	Shutdown_DIW	Shutdown_DIW
09/10/2023 17:00	Shutdown_DIW	Shutdown_DIW
09/10/2023 18:00	Shutdown_DIW	Shutdown_DIW
09/10/2023 19:00	Shutdown_DIW	Shutdown_DIW
09/10/2023 20:00	Shutdown_DIW	Shutdown_DIW
09/10/2023 21:00	Shutdown_DIW	Shutdown_DIW
09/10/2023 22:00	Shutdown_DIW	Shutdown_DIW
09/10/2023 23:00	Shutdown_DIW	Shutdown_DIW
10/10/2023 00:00	Shutdown_DIW	Shutdown_DIW
10/10/2023 01:00	Shutdown_DIW	Shutdown_DIW
10/10/2023 02:00	Shutdown_DIW	Shutdown_DIW
10/10/2023 03:00	Shutdown_DIW	Shutdown_DIW
10/10/2023 04:00	Shutdown_DIW	Shutdown_DIW
10/10/2023 05:00	Shutdown_DIW	Shutdown_DIW
10/10/2023 06:00	Shutdown_DIW	Shutdown_DIW
10/10/2023 07:00	Shutdown_DIW	Shutdown_DIW
10/10/2023 08:00	Shutdown_DIW	Shutdown_DIW
10/10/2023 09:00	Shutdown_DIW	Shutdown_DIW
10/10/2023 10:00	Shutdown_DIW	Shutdown_DIW
10/10/2023 11:00	Shutdown_DIW	Shutdown_DIW
10/10/2023 12:00	Shutdown_DIW	Shutdown_DIW
10/10/2023 13:00	Shutdown_DIW	Shutdown_DIW
10/10/2023 14:00	Shutdown_DIW	Shutdown_DIW
10/10/2023 15:00	Shutdown_DIW	Shutdown_DIW
10/10/2023 16:00	Shutdown_DIW	Shutdown_DIW
10/10/2023 17:00	Shutdown_DIW	Shutdown_DIW
10/10/2023 18:00	Shutdown_DIW	Shutdown_DIW
10/10/2023 19:00	Shutdown_DIW	Shutdown_DIW
10/10/2023 20:00	Shutdown_DIW	Shutdown_DIW
10/10/2023 21:00	Shutdown_DIW	Shutdown_DIW
10/10/2023 22:00	Shutdown_DIW	Shutdown_DIW
10/10/2023 23:00	Shutdown_DIW	Shutdown_DIW
11/10/2023 00:00	Shutdown_DIW	Shutdown_DIW

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
22/10/2023 09:00	Shutdown_DIW	Shutdown_DIW
22/10/2023 10:00	Shutdown_DIW	Shutdown_DIW
22/10/2023 11:00	Shutdown_DIW	Shutdown_DIW
22/10/2023 12:00	Shutdown_DIW	Shutdown_DIW
22/10/2023 13:00	Shutdown_DIW	Shutdown_DIW
22/10/2023 14:00	Shutdown_DIW	Shutdown_DIW
22/10/2023 15:00	Shutdown_DIW	Shutdown_DIW
22/10/2023 16:00	Shutdown_DIW	Shutdown_DIW
22/10/2023 17:00	Shutdown_DIW	Shutdown_DIW
22/10/2023 18:00	Shutdown_DIW	Shutdown_DIW
22/10/2023 19:00	Shutdown_DIW	Shutdown_DIW
22/10/2023 20:00	Shutdown_DIW	Shutdown_DIW
22/10/2023 21:00	Shutdown_DIW	Shutdown_DIW
22/10/2023 22:00	Shutdown_DIW	Shutdown_DIW
22/10/2023 23:00	Shutdown_DIW	Shutdown_DIW
23/10/2023 00:00	Shutdown_DIW	Shutdown_DIW
23/10/2023 01:00	Shutdown_DIW	Shutdown_DIW
23/10/2023 02:00	Shutdown_DIW	Shutdown_DIW
23/10/2023 03:00	Shutdown_DIW	Shutdown_DIW
23/10/2023 04:00	Shutdown_DIW	Shutdown_DIW
23/10/2023 05:00	Shutdown_DIW	Shutdown_DIW
23/10/2023 06:00	Shutdown_DIW	Shutdown_DIW
23/10/2023 07:00	Shutdown_DIW	Shutdown_DIW
23/10/2023 08:00	Shutdown_DIW	Shutdown_DIW
23/10/2023 09:00	Shutdown_DIW	Shutdown_DIW
23/10/2023 10:00	Shutdown_DIW	Shutdown_DIW
23/10/2023 11:00	Shutdown_DIW	Shutdown_DIW
23/10/2023 12:00	Shutdown_DIW	Shutdown_DIW
23/10/2023 13:00	Shutdown_DIW	Shutdown_DIW
23/10/2023 14:00	Shutdown_DIW	Shutdown_DIW
23/10/2023 15:00	Shutdown_DIW	Shutdown_DIW
23/10/2023 16:00	Shutdown_DIW	Shutdown_DIW
23/10/2023 17:00	Shutdown_DIW	Shutdown_DIW
23/10/2023 18:00	Shutdown_DIW	Shutdown_DIW

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
28/10/2023 01:00	27.61	13.17
28/10/2023 02:00	26.89	13.17
28/10/2023 03:00	27.68	13.17
28/10/2023 04:00	27.73	13.17
28/10/2023 05:00	27.67	13.17
28/10/2023 06:00	27.41	13.18
28/10/2023 07:00	28.28	13.16
28/10/2023 08:00	52.4	12.54
28/10/2023 09:00	52.48	12.54
28/10/2023 10:00	52.46	12.54
28/10/2023 11:00	52.3	12.52
28/10/2023 12:00	53.73	12.49
28/10/2023 13:00	55.09	12.45
28/10/2023 14:00	54.68	12.5
28/10/2023 15:00	54.1	12.55
28/10/2023 16:00	54.98	12.52
28/10/2023 17:00	54.15	12.54
28/10/2023 18:00	53.62	12.56
28/10/2023 19:00	53.39	12.57
28/10/2023 20:00	52.78	12.58
28/10/2023 21:00	52.16	12.59
28/10/2023 22:00	51.33	12.59
28/10/2023 23:00	40.03	12.91
29/10/2023 00:00	28.4	13.17
29/10/2023 01:00	28.05	13.16
29/10/2023 02:00	28.07	13.16
29/10/2023 03:00	28.05	13.16
29/10/2023 04:00	27.9	13.18
29/10/2023 05:00	27.12	13.19
29/10/2023 06:00	27.7	13.19
29/10/2023 07:00	27.67	13.18
29/10/2023 08:00	27	13.18
29/10/2023 09:00	26.52	13.2
29/10/2023 10:00	25.68	13.19

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
29/10/2023 11:00	25.73	13.19
29/10/2023 12:00	25.88	13.21
29/10/2023 13:00	26.33	13.18
29/10/2023 14:00	26.73	13.21
29/10/2023 15:00	26.2	13.2
29/10/2023 16:00	25.84	13.2
29/10/2023 17:00	27.88	13.19
29/10/2023 18:00	53.75	12.56
29/10/2023 19:00	52.52	12.58
29/10/2023 20:00	52.22	12.57
29/10/2023 21:00	52.29	12.56
29/10/2023 22:00	52.39	12.59
29/10/2023 23:00	27.32	13.18
30/10/2023 00:00	26.67	13.17
30/10/2023 01:00	26.68	13.16
30/10/2023 02:00	26.26	13.16
30/10/2023 03:00	26.37	13.16
30/10/2023 04:00	27.16	13.16
30/10/2023 05:00	26.4	13.16
30/10/2023 06:00	26.99	13.17
30/10/2023 07:00	28.56	13.16
30/10/2023 08:00	52.8	12.54
30/10/2023 09:00	51.27	12.56
30/10/2023 10:00	51.28	12.54
30/10/2023 11:00	51.44	12.53
30/10/2023 12:00	51.94	12.5
30/10/2023 13:00	53.27	12.47
30/10/2023 14:00	53.03	12.49
30/10/2023 15:00	52.77	12.57
30/10/2023 16:00	52.57	12.59
30/10/2023 17:00	52.48	12.59
30/10/2023 18:00	52.15	12.59
30/10/2023 19:00	51.92	12.58
30/10/2023 20:00	51.71	12.57

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
30/10/2023 21:00	51.5	12.58
30/10/2023 22:00	51.3	12.58
30/10/2023 23:00	39.75	12.92
31/10/2023 00:00	26.03	13.15
31/10/2023 01:00	26.38	13.16
31/10/2023 02:00	26.33	13.17
31/10/2023 03:00	26.49	13.18
31/10/2023 04:00	26.64	13.19
31/10/2023 05:00	26.85	13.21
31/10/2023 06:00	27.12	13.24
31/10/2023 07:00	29.11	13.23
31/10/2023 08:00	51.58	12.58
31/10/2023 09:00	50.78	12.57
31/10/2023 10:00	50.75	12.55
31/10/2023 11:00	51.02	12.54
31/10/2023 12:00	52.14	12.51
31/10/2023 13:00	52.73	12.5
31/10/2023 14:00	52.72	12.5
31/10/2023 15:00	52.95	12.52
31/10/2023 16:00	53.4	12.53
31/10/2023 17:00	52.85	12.55
31/10/2023 18:00	52.34	12.57
31/10/2023 19:00	51.69	12.59
31/10/2023 20:00	51.12	12.59
31/10/2023 21:00	50.85	12.59
31/10/2023 22:00	50.33	12.59
31/10/2023 23:00	39.12	12.93
01/11/2023 00:00	26.4	13.21
01/11/2023 01:00	26.63	13.24
01/11/2023 02:00	26.47	13.23
01/11/2023 03:00	26.61	13.24
01/11/2023 04:00	26.58	13.23
01/11/2023 05:00	26.91	13.24
01/11/2023 06:00	26.79	13.24

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
01/11/2023 07:00	26.75	13.24
01/11/2023 08:00	27.06	13.26
01/11/2023 09:00	27.05	13.27
01/11/2023 10:00	26.94	13.27
01/11/2023 11:00	26.8	13.28
01/11/2023 12:00	26.55	13.28
01/11/2023 13:00	46.77	12.67
01/11/2023 14:00	52.19	12.5
01/11/2023 15:00	52.35	12.52
01/11/2023 16:00	52.99	12.56
01/11/2023 17:00	54.52	12.59
01/11/2023 18:00	54.2	12.6
01/11/2023 19:00	53.42	12.62
01/11/2023 20:00	53.1	12.62
01/11/2023 21:00	52.87	12.61
01/11/2023 22:00	46.8	12.8
01/11/2023 23:00	25.67	13.2
02/11/2023 00:00	25.81	13.22
02/11/2023 01:00	25.98	13.23
02/11/2023 02:00	26.05	13.24
02/11/2023 03:00	26.34	13.24
02/11/2023 04:00	26.45	13.25
02/11/2023 05:00	26.37	13.24
02/11/2023 06:00	26.32	13.24
02/11/2023 07:00	26.37	13.25
02/11/2023 08:00	26.77	13.27
02/11/2023 09:00	26.88	13.28
02/11/2023 10:00	27.13	13.28
02/11/2023 11:00	26.98	13.29
02/11/2023 12:00	26.61	13.3
02/11/2023 13:00	47.62	12.7
02/11/2023 14:00	54.75	12.51
02/11/2023 15:00	54.6	12.52
02/11/2023 16:00	54.7	12.53

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
02/11/2023 17:00	54.99	12.56
02/11/2023 18:00	54.22	12.59
02/11/2023 19:00	53.84	12.6
02/11/2023 20:00	54.05	12.59
02/11/2023 21:00	53.51	12.59
02/11/2023 22:00	47.18	12.77
02/11/2023 23:00	25.18	13.18
03/11/2023 00:00	25.12	13.17
03/11/2023 01:00	25.48	13.18
03/11/2023 02:00	25.49	13.18
03/11/2023 03:00	25.44	13.16
03/11/2023 04:00	26.18	13.17
03/11/2023 05:00	26.96	13.18
03/11/2023 06:00	26.64	13.21
03/11/2023 07:00	25.7	13.21
03/11/2023 08:00	25.64	13.23
03/11/2023 09:00	26.3	13.27
03/11/2023 10:00	26.46	13.29
03/11/2023 11:00	26.64	13.3
03/11/2023 12:00	26.49	13.3
03/11/2023 13:00	47.21	12.69
03/11/2023 14:00	55.29	12.51
03/11/2023 15:00	54.86	12.52
03/11/2023 16:00	55.11	12.53
03/11/2023 17:00	55.52	12.55
03/11/2023 18:00	55.81	12.57
03/11/2023 19:00	53.98	12.62
03/11/2023 20:00	53.39	12.63
03/11/2023 21:00	53.76	12.61
03/11/2023 22:00	47.78	12.79
03/11/2023 23:00	28.07	13.19
04/11/2023 00:00	28.19	13.18
04/11/2023 01:00	27.54	13.18
04/11/2023 02:00	27.02	13.18

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
04/11/2023 03:00	26.85	13.18
04/11/2023 04:00	26.39	13.18
04/11/2023 05:00	26.01	13.18
04/11/2023 06:00	26.21	13.18
04/11/2023 07:00	25.72	13.17
04/11/2023 08:00	25.22	13.2
04/11/2023 09:00	25.48	13.23
04/11/2023 10:00	25.76	13.26
04/11/2023 11:00	25.62	13.27
04/11/2023 12:00	25.32	13.21
04/11/2023 13:00	47.68	12.77
04/11/2023 14:00	54.44	12.58
04/11/2023 15:00	54.45	12.58
04/11/2023 16:00	54.59	12.57
04/11/2023 17:00	54.51	12.57
04/11/2023 18:00	53.98	12.58
04/11/2023 19:00	53.21	12.59
04/11/2023 20:00	53.33	12.59
04/11/2023 21:00	53.77	12.58
04/11/2023 22:00	47.18	12.76
04/11/2023 23:00	26.62	13.16
05/11/2023 00:00	26.84	13.16
05/11/2023 01:00	26.96	13.16
05/11/2023 02:00	27.01	13.17
05/11/2023 03:00	26.76	13.18
05/11/2023 04:00	26.59	13.18
05/11/2023 05:00	25.98	13.18
05/11/2023 06:00	26.55	13.18
05/11/2023 07:00	25.71	13.18
05/11/2023 08:00	25.37	13.19
05/11/2023 09:00	25.19	13.19
05/11/2023 10:00	25.1	13.21
05/11/2023 11:00	25.79	13.26
05/11/2023 12:00	25.76	13.26

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
05/11/2023 13:00	25.78	13.27
05/11/2023 14:00	25.01	13.24
05/11/2023 15:00	25.98	13.28
05/11/2023 16:00	26.4	13.29
05/11/2023 17:00	33.47	13.16
05/11/2023 18:00	54.63	12.62
05/11/2023 19:00	54.02	12.61
05/11/2023 20:00	53.79	12.6
05/11/2023 21:00	34.48	13.09
05/11/2023 22:00	27.82	13.19
05/11/2023 23:00	27.71	13.19
06/11/2023 00:00	27.9	13.19
06/11/2023 01:00	27.24	13.18
06/11/2023 02:00	27.52	13.18
06/11/2023 03:00	27.21	13.17
06/11/2023 04:00	27.35	13.18
06/11/2023 05:00	27.26	13.19
06/11/2023 06:00	27.88	13.18
06/11/2023 07:00	26.45	13.19
06/11/2023 08:00	25.72	13.22
06/11/2023 09:00	26.13	13.25
06/11/2023 10:00	26.63	13.29
06/11/2023 11:00	26.42	13.29
06/11/2023 12:00	26.26	13.28
06/11/2023 13:00	47.6	12.7
06/11/2023 14:00	55.39	12.49
06/11/2023 15:00	55.09	12.54
06/11/2023 16:00	54.2	12.6
06/11/2023 17:00	54.8	12.59
06/11/2023 18:00	55.67	12.57
06/11/2023 19:00	55.42	12.58
06/11/2023 20:00	54.23	12.6
06/11/2023 21:00	53.47	12.6
06/11/2023 22:00	47.39	12.78

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
06/11/2023 23:00	25.56	13.18
07/11/2023 00:00	26.03	13.18
07/11/2023 01:00	25.67	13.19
07/11/2023 02:00	25.53	13.18
07/11/2023 03:00	25.7	13.18
07/11/2023 04:00	26.03	13.19
07/11/2023 05:00	26.22	13.18
07/11/2023 06:00	26.99	13.19
07/11/2023 07:00	25.82	13.2
07/11/2023 08:00	25.42	13.21
07/11/2023 09:00	25.36	13.22
07/11/2023 10:00	25.74	13.25
07/11/2023 11:00	25.87	13.25
07/11/2023 12:00	25.48	13.24
07/11/2023 13:00	47.82	12.71
07/11/2023 14:00	55.07	12.58
07/11/2023 15:00	55.76	12.58
07/11/2023 16:00	55.2	12.58
07/11/2023 17:00	55.2	12.57
07/11/2023 18:00	55.4	12.56
07/11/2023 19:00	54.79	12.58
07/11/2023 20:00	54.25	12.58
07/11/2023 21:00	53.74	12.59
07/11/2023 22:00	47.18	12.78
07/11/2023 23:00	27.31	13.17
08/11/2023 00:00	27.06	13.16
08/11/2023 01:00	26.81	13.16
08/11/2023 02:00	26.81	13.17
08/11/2023 03:00	27.25	13.17
08/11/2023 04:00	27.17	13.17
08/11/2023 05:00	27.36	13.17
08/11/2023 06:00	28.05	13.19
08/11/2023 07:00	26.18	13.19
08/11/2023 08:00	25.65	13.21

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
08/11/2023 09:00	26.18	13.25
08/11/2023 10:00	26.18	13.26
08/11/2023 11:00	26.4	13.28
08/11/2023 12:00	26.48	13.28
08/11/2023 13:00	47.79	12.7
08/11/2023 14:00	55.19	12.5
08/11/2023 15:00	55.09	12.57
08/11/2023 16:00	56.01	12.6
08/11/2023 17:00	55.73	12.58
08/11/2023 18:00	55.7	12.57
08/11/2023 19:00	55.06	12.59
08/11/2023 20:00	54.36	12.6
08/11/2023 21:00	54.28	12.59
08/11/2023 22:00	47.48	12.78
08/11/2023 23:00	25.3	13.17
09/11/2023 00:00	26.03	13.16
09/11/2023 01:00	25.74	13.16
09/11/2023 02:00	25.88	13.16
09/11/2023 03:00	25.5	13.16
09/11/2023 04:00	26.35	13.17
09/11/2023 05:00	25.45	13.17
09/11/2023 06:00	25.64	13.18
09/11/2023 07:00	25.25	13.18
09/11/2023 08:00	25.21	13.19
09/11/2023 09:00	25.69	13.23
09/11/2023 10:00	25.57	13.23
09/11/2023 11:00	25.7	13.24
09/11/2023 12:00	25.94	13.25
09/11/2023 13:00	48.18	12.74
09/11/2023 14:00	55.87	12.54
09/11/2023 15:00	56.49	12.53
09/11/2023 16:00	56.25	12.55
09/11/2023 17:00	55.76	12.57
09/11/2023 18:00	55.46	12.57

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
09/11/2023 19:00	54.92	12.58
09/11/2023 20:00	54.57	12.59
09/11/2023 21:00	53.93	12.59
09/11/2023 22:00	47.82	12.78
09/11/2023 23:00	25.54	13.17
10/11/2023 00:00	25.79	13.16
10/11/2023 01:00	25.87	13.16
10/11/2023 02:00	26.41	13.16
10/11/2023 03:00	26.92	13.17
10/11/2023 04:00	26.46	13.18
10/11/2023 05:00	26.39	13.18
10/11/2023 06:00	26.35	13.18
10/11/2023 07:00	25.75	13.2
10/11/2023 08:00	25.77	13.23
10/11/2023 09:00	25.55	13.23
10/11/2023 10:00	25.84	13.26
10/11/2023 11:00	26.05	13.27
10/11/2023 12:00	26.05	13.27
10/11/2023 13:00	47.74	12.85
10/11/2023 14:00	55.44	12.57
10/11/2023 15:00	55.95	12.57
10/11/2023 16:00	55.55	12.58
10/11/2023 17:00	55.23	12.58
10/11/2023 18:00	55.01	12.59
10/11/2023 19:00	54.25	12.61
10/11/2023 20:00	53.58	12.61
10/11/2023 21:00	53.43	12.61
10/11/2023 22:00	47.23	12.78
10/11/2023 23:00	27.01	13.17
11/11/2023 00:00	27.25	13.16
11/11/2023 01:00	24.98	13.16
11/11/2023 02:00	26.56	13.15
11/11/2023 03:00	26.71	13.16
11/11/2023 04:00	26.39	13.16

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
11/11/2023 05:00	26.28	13.17
11/11/2023 06:00	26.24	13.18
11/11/2023 07:00	26.21	13.18
11/11/2023 08:00	25.76	13.18
11/11/2023 09:00	25.22	13.18
11/11/2023 10:00	25.46	13.22
11/11/2023 11:00	25.97	13.26
11/11/2023 12:00	26.36	13.29
11/11/2023 13:00	48.18	12.72
11/11/2023 14:00	55.23	12.53
11/11/2023 15:00	56.2	12.52
11/11/2023 16:00	56.24	12.53
11/11/2023 17:00	56.28	12.56
11/11/2023 18:00	55.66	12.59
11/11/2023 19:00	55.2	12.6
11/11/2023 20:00	54.68	12.61
11/11/2023 21:00	54.39	12.61
11/11/2023 22:00	47.89	12.78
11/11/2023 23:00	25.86	13.18
12/11/2023 00:00	25.64	13.17
12/11/2023 01:00	25.39	13.17
12/11/2023 02:00	25.02	13.18
12/11/2023 03:00	25.14	13.18
12/11/2023 04:00	25.27	13.19
12/11/2023 05:00	25.71	13.18
12/11/2023 06:00	26.15	13.2
12/11/2023 07:00	26.17	13.22
12/11/2023 08:00	25.67	13.21
12/11/2023 09:00	25.46	13.22
12/11/2023 10:00	25.42	13.23
12/11/2023 11:00	25.28	13.22
12/11/2023 12:00	25.08	13.2
12/11/2023 13:00	24.76	13.2
12/11/2023 14:00	25.03	13.22

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
12/11/2023 15:00	25.29	13.25
12/11/2023 16:00	25.25	13.25
12/11/2023 17:00	32.45	13.1
12/11/2023 18:00	54.99	12.59
12/11/2023 19:00	54.28	12.6
12/11/2023 20:00	54.48	12.6
12/11/2023 21:00	33.59	13.09
12/11/2023 22:00	25.4	13.19
12/11/2023 23:00	25.25	13.19
13/11/2023 00:00	25.33	13.19
13/11/2023 01:00	25.45	13.19
13/11/2023 02:00	25.32	13.19
13/11/2023 03:00	25.44	13.19
13/11/2023 04:00	25.35	13.19
13/11/2023 05:00	25.37	13.19
13/11/2023 06:00	25.61	13.2
13/11/2023 07:00	25.34	13.2
13/11/2023 08:00	25.36	13.22
13/11/2023 09:00	25.42	13.23
13/11/2023 10:00	26.03	13.27
13/11/2023 11:00	26.07	13.27
13/11/2023 12:00	26.18	13.28
13/11/2023 13:00	47.97	12.71
13/11/2023 14:00	55.25	12.51
13/11/2023 15:00	55.87	12.54
13/11/2023 16:00	55.91	12.55
13/11/2023 17:00	55.84	12.57
13/11/2023 18:00	55.91	12.58
13/11/2023 19:00	55.49	12.6
13/11/2023 20:00	54.71	12.6
13/11/2023 21:00	53.76	12.62
13/11/2023 22:00	47.5	12.8
13/11/2023 23:00	25.24	13.19
14/11/2023 00:00	25.23	13.2

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
14/11/2023 01:00	25.74	13.21
14/11/2023 02:00	26.05	13.22
14/11/2023 03:00	26.03	13.21
14/11/2023 04:00	26.13	13.22
14/11/2023 05:00	26.31	13.22
14/11/2023 06:00	26.37	13.23
14/11/2023 07:00	26.32	13.24
14/11/2023 08:00	26.09	13.24
14/11/2023 09:00	26.17	13.25
14/11/2023 10:00	25.96	13.25
14/11/2023 11:00	25.91	13.26
14/11/2023 12:00	26.1	13.27
14/11/2023 13:00	48.01	12.72
14/11/2023 14:00	55.39	12.52
14/11/2023 15:00	56.05	12.52
14/11/2023 16:00	55.73	12.55
14/11/2023 17:00	55.46	12.58
14/11/2023 18:00	54.89	12.6
14/11/2023 19:00	54.36	12.61
14/11/2023 20:00	54.04	12.61
14/11/2023 21:00	53.8	12.61
14/11/2023 22:00	47.39	12.79
14/11/2023 23:00	25.42	13.21
15/11/2023 00:00	25.57	13.23
15/11/2023 01:00	26.07	13.24
15/11/2023 02:00	25.88	13.24
15/11/2023 03:00	26.15	13.24
15/11/2023 04:00	26.19	13.24
15/11/2023 05:00	26.72	13.25
15/11/2023 06:00	26.99	13.26
15/11/2023 07:00	27.06	13.27
15/11/2023 08:00	27.21	13.26
15/11/2023 09:00	26.9	13.27
15/11/2023 10:00	26.59	13.27

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
15/11/2023 11:00	26.87	13.29
15/11/2023 12:00	26.77	13.29
15/11/2023 13:00	47.17	12.73
15/11/2023 14:00	53.95	12.53
15/11/2023 15:00	55.02	12.53
15/11/2023 16:00	55.36	12.56
15/11/2023 17:00	55.04	12.59
15/11/2023 18:00	54.57	12.61
15/11/2023 19:00	54.1	12.62
15/11/2023 20:00	53.34	12.62
15/11/2023 21:00	53.1	12.61
15/11/2023 22:00	46.71	12.81
15/11/2023 23:00	26.71	13.22
16/11/2023 00:00	26.32	13.24
16/11/2023 01:00	26.26	13.24
16/11/2023 02:00	26.46	13.24
16/11/2023 03:00	26.4	13.24
16/11/2023 04:00	26.4	13.25
16/11/2023 05:00	26.6	13.25
16/11/2023 06:00	26.83	13.25
16/11/2023 07:00	26.67	13.25
16/11/2023 08:00	26.51	13.26
16/11/2023 09:00	26.43	13.27
16/11/2023 10:00	26.6	13.28
16/11/2023 11:00	26.22	13.27
16/11/2023 12:00	26.37	13.23
16/11/2023 13:00	47.86	12.73
16/11/2023 14:00	54.69	12.56
16/11/2023 15:00	55.11	12.58
16/11/2023 16:00	55.94	12.59
16/11/2023 17:00	55.07	12.6
16/11/2023 18:00	54.29	12.61
16/11/2023 19:00	54.01	12.61
16/11/2023 20:00	53.27	12.62

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
16/11/2023 21:00	53.18	12.62
16/11/2023 22:00	46.68	12.81
16/11/2023 23:00	28.09	13.22
17/11/2023 00:00	26.75	13.26
17/11/2023 01:00	26.78	13.27
17/11/2023 02:00	27.08	13.26
17/11/2023 03:00	28	13.27
17/11/2023 04:00	29.32	13.28
17/11/2023 05:00	30.74	13.29
17/11/2023 06:00	32.04	13.3
17/11/2023 07:00	32.12	13.31
17/11/2023 08:00	30.85	13.31
17/11/2023 09:00	29.63	13.31
17/11/2023 10:00	29.11	13.31
17/11/2023 11:00	Maintenance_DIW	Maintenance_DIW
17/11/2023 12:00	Maintenance_DIW	Maintenance_DIW
17/11/2023 13:00	Maintenance_DIW	Maintenance_DIW
17/11/2023 14:00	53.49	12.6
17/11/2023 15:00	53.56	12.63
17/11/2023 16:00	53.33	12.66
17/11/2023 17:00	52.72	12.69
17/11/2023 18:00	52.14	12.71
17/11/2023 19:00	51.46	12.72
17/11/2023 20:00	51.15	12.72
17/11/2023 21:00	51.04	12.72
17/11/2023 22:00	45.12	12.9
17/11/2023 23:00	33.05	13.33
18/11/2023 00:00	31.17	13.37
18/11/2023 01:00	31.16	13.35
18/11/2023 02:00	32.16	13.34
18/11/2023 03:00	32.38	13.34
18/11/2023 04:00	33.54	13.34
18/11/2023 05:00	34.6	13.35
18/11/2023 06:00	35.06	13.35

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
18/11/2023 07:00	35.16	13.35
18/11/2023 08:00	34.27	13.35
18/11/2023 09:00	31.84	13.36
18/11/2023 10:00	28.64	13.36
18/11/2023 11:00	27.5	13.36
18/11/2023 12:00	27.17	13.36
18/11/2023 13:00	45.69	12.87
18/11/2023 14:00	51.16	12.59
18/11/2023 15:00	51.53	12.59
18/11/2023 16:00	51.47	12.62
18/11/2023 17:00	50.72	12.66
18/11/2023 18:00	50.16	12.69
18/11/2023 19:00	49.81	12.7
18/11/2023 20:00	49.35	12.7
18/11/2023 21:00	49.04	12.7
18/11/2023 22:00	43.77	12.88
18/11/2023 23:00	33.69	13.3
19/11/2023 00:00	30.98	13.34
19/11/2023 01:00	30.83	13.34
19/11/2023 02:00	31.47	13.34
19/11/2023 03:00	32.3	13.33
19/11/2023 04:00	32.39	13.34
19/11/2023 05:00	32.74	13.35
19/11/2023 06:00	34.45	13.34
19/11/2023 07:00	33.36	13.35
19/11/2023 08:00	33.29	13.35
19/11/2023 09:00	30.24	13.35
19/11/2023 10:00	27.98	13.36
19/11/2023 11:00	26.99	13.36
19/11/2023 12:00	26.68	13.36
19/11/2023 13:00	26.49	13.35
19/11/2023 14:00	26.33	13.36
19/11/2023 15:00	26.24	13.37
19/11/2023 16:00	30.1	13.34

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
19/11/2023 17:00	32.01	13.45
19/11/2023 18:00	30.87	13.29
19/11/2023 19:00	41.04	12.68
19/11/2023 20:00	41.65	12.71
19/11/2023 21:00	31.4	13.2
19/11/2023 22:00	29.31	13.35
19/11/2023 23:00	29.56	13.37
20/11/2023 00:00	29.29	13.35
20/11/2023 01:00	29.36	13.34
20/11/2023 02:00	29.34	13.34
20/11/2023 03:00	29.21	13.34
20/11/2023 04:00	29.21	13.33
20/11/2023 05:00	29.38	13.32
20/11/2023 06:00	29.78	13.33
20/11/2023 07:00	29.68	13.35
20/11/2023 08:00	29.5	13.37
20/11/2023 09:00	29.16	13.38
20/11/2023 10:00	28.68	13.39
20/11/2023 11:00	28.24	13.4
20/11/2023 12:00	27.66	13.4
20/11/2023 13:00	37.33	12.94
20/11/2023 14:00	41.54	12.57
20/11/2023 15:00	41.8	12.59
20/11/2023 16:00	41.78	12.62
20/11/2023 17:00	41.62	12.64
20/11/2023 18:00	41.2	12.67
20/11/2023 19:00	40.74	12.68
20/11/2023 20:00	40.34	12.68
20/11/2023 21:00	40.2	12.68
20/11/2023 22:00	36.91	12.86
20/11/2023 23:00	28.44	13.31
21/11/2023 00:00	28.75	13.34
21/11/2023 01:00	28.6	13.34
21/11/2023 02:00	28.69	13.33

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
21/11/2023 03:00	28.64	13.34
21/11/2023 04:00	28.7	13.34
21/11/2023 05:00	28.66	13.33
21/11/2023 06:00	28.94	13.33
21/11/2023 07:00	28.83	13.34
21/11/2023 08:00	28.66	13.36
21/11/2023 09:00	28.31	13.37
21/11/2023 10:00	27.75	13.39
21/11/2023 11:00	27.32	13.4
21/11/2023 12:00	26.65	13.4
21/11/2023 13:00	37.51	12.78
21/11/2023 14:00	41.66	12.56
21/11/2023 15:00	41.84	12.57
21/11/2023 16:00	42.11	12.6
21/11/2023 17:00	42.36	12.62
21/11/2023 18:00	42.66	12.63
21/11/2023 19:00	42.59	12.63
21/11/2023 20:00	42.09	12.64
21/11/2023 21:00	41.78	12.65
21/11/2023 22:00	37.79	12.84
21/11/2023 23:00	27.22	13.31
22/11/2023 00:00	27.54	13.33
22/11/2023 01:00	27.67	13.34
22/11/2023 02:00	27.54	13.34
22/11/2023 03:00	27.46	13.33
22/11/2023 04:00	27.35	13.32
22/11/2023 05:00	27.58	13.32
22/11/2023 06:00	27.43	13.33
22/11/2023 07:00	27.4	13.34
22/11/2023 08:00	27.06	13.36
22/11/2023 09:00	26.85	13.37
22/11/2023 10:00	26.44	13.39
22/11/2023 11:00	26.22	13.41
22/11/2023 12:00	25.85	13.4

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
22/11/2023 13:00	37.16	12.79
22/11/2023 14:00	42.63	12.56
22/11/2023 15:00	42.31	12.57
22/11/2023 16:00	42.39	12.6
22/11/2023 17:00	42.86	12.62
22/11/2023 18:00	43.16	12.63
22/11/2023 19:00	43.21	12.63
22/11/2023 20:00	42.96	12.64
22/11/2023 21:00	42.51	12.64
22/11/2023 22:00	38.3	12.83
22/11/2023 23:00	27.15	13.3
23/11/2023 00:00	27.28	13.32
23/11/2023 01:00	26.82	13.31
23/11/2023 02:00	26.97	13.3
23/11/2023 03:00	27.44	13.33
23/11/2023 04:00	27.26	13.33
23/11/2023 05:00	27.17	13.32
23/11/2023 06:00	27.41	13.33
23/11/2023 07:00	27.26	13.34
23/11/2023 08:00	26.87	13.35
23/11/2023 09:00	27.01	13.38
23/11/2023 10:00	26.96	13.41
23/11/2023 11:00	26.51	13.4
23/11/2023 12:00	26.18	13.41
23/11/2023 13:00	37.45	12.79
23/11/2023 14:00	41.95	12.57
23/11/2023 15:00	42.09	12.58
23/11/2023 16:00	42.31	12.61
23/11/2023 17:00	42.66	12.62
23/11/2023 18:00	42.7	12.63
23/11/2023 19:00	42.35	12.64
23/11/2023 20:00	42.12	12.65
23/11/2023 21:00	41.87	12.64
23/11/2023 22:00	37.88	12.84

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
23/11/2023 23:00	26.53	13.3
24/11/2023 00:00	26.78	13.32
24/11/2023 01:00	26.53	13.3
24/11/2023 02:00	26.55	13.31
24/11/2023 03:00	26.7	13.31
24/11/2023 04:00	26.76	13.32
24/11/2023 05:00	27.04	13.32
24/11/2023 06:00	27	13.32
24/11/2023 07:00	26.94	13.33
24/11/2023 08:00	26.81	13.35
24/11/2023 09:00	26.58	13.37
24/11/2023 10:00	26.23	13.38
24/11/2023 11:00	25.85	13.38
24/11/2023 12:00	25.55	13.38
24/11/2023 13:00	37.11	12.78
24/11/2023 14:00	41.79	12.57
24/11/2023 15:00	41.95	12.59
24/11/2023 16:00	41.95	12.61
24/11/2023 17:00	42.21	12.63
24/11/2023 18:00	42.13	12.65
24/11/2023 19:00	41.59	12.69
24/11/2023 20:00	41.2	12.7
24/11/2023 21:00	41.17	12.7
24/11/2023 22:00	37.3	12.88
24/11/2023 23:00	26.31	13.3
25/11/2023 00:00	26.72	13.33
25/11/2023 01:00	26.83	13.34
25/11/2023 02:00	26.93	13.34
25/11/2023 03:00	27.09	13.33
25/11/2023 04:00	27.37	13.34
25/11/2023 05:00	27.64	13.35
25/11/2023 06:00	27.64	13.35
25/11/2023 07:00	27.46	13.35
25/11/2023 08:00	27.73	13.38

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
25/11/2023 09:00	27.76	13.4
25/11/2023 10:00	27.21	13.41
25/11/2023 11:00	26.62	13.41
25/11/2023 12:00	26.07	13.4
25/11/2023 13:00	37.28	12.79
25/11/2023 14:00	41.85	12.58
25/11/2023 15:00	42.08	12.6
25/11/2023 16:00	42.32	12.62
25/11/2023 17:00	42.2	12.63
25/11/2023 18:00	41.65	12.65
25/11/2023 19:00	41.38	12.7
25/11/2023 20:00	41.18	12.7
25/11/2023 21:00	40.67	12.7
25/11/2023 22:00	36.76	12.88
25/11/2023 23:00	26.96	13.33
26/11/2023 00:00	26.92	13.36
26/11/2023 01:00	26.59	13.35
26/11/2023 02:00	26.4	13.34
26/11/2023 03:00	26.91	13.34
26/11/2023 04:00	27.04	13.35
26/11/2023 05:00	27.11	13.36
26/11/2023 06:00	27.45	13.37
26/11/2023 07:00	27.27	13.37
26/11/2023 08:00	27.03	13.37
26/11/2023 09:00	26.51	13.36
26/11/2023 10:00	26.13	13.37
26/11/2023 11:00	25.46	13.37
26/11/2023 12:00	24.99	13.37
26/11/2023 13:00	24.61	13.37
26/11/2023 14:00	24.51	13.37
26/11/2023 15:00	24.39	13.39
26/11/2023 16:00	24.47	13.39
26/11/2023 17:00	28.34	13.22
26/11/2023 18:00	41.14	12.66

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
26/11/2023 19:00	41.5	12.65
26/11/2023 20:00	40.6	12.66
26/11/2023 21:00	28.65	13.17
26/11/2023 22:00	25.27	13.32
26/11/2023 23:00	24.97	13.31
27/11/2023 00:00	24.91	13.3
27/11/2023 01:00	24.74	13.28
27/11/2023 02:00	24.85	13.28
27/11/2023 03:00	25	13.28
27/11/2023 04:00	25.14	13.29
27/11/2023 05:00	25.49	13.3
27/11/2023 06:00	25.7	13.3
27/11/2023 07:00	25.7	13.31
27/11/2023 08:00	25.69	13.32
27/11/2023 09:00	26	13.33
27/11/2023 10:00	25.77	13.33
27/11/2023 11:00	25.43	13.32
27/11/2023 12:00	24.86	13.34
27/11/2023 13:00	36.63	12.77
27/11/2023 14:00	41.31	12.57
27/11/2023 15:00	41.53	12.59
27/11/2023 16:00	41.8	12.61
27/11/2023 17:00	41.58	12.63
27/11/2023 18:00	39.45	12.67
27/11/2023 19:00	38.39	12.66
27/11/2023 20:00	37.93	12.66
27/11/2023 21:00	38.41	12.67
27/11/2023 22:00	35.36	12.86
27/11/2023 23:00	26.1	13.3
28/11/2023 00:00	26.44	13.32
28/11/2023 01:00	26.73	13.34
28/11/2023 02:00	27.14	13.35
28/11/2023 03:00	27.26	13.35
28/11/2023 04:00	27.37	13.35

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
28/11/2023 05:00	27.82	13.36
28/11/2023 06:00	28.24	13.37
28/11/2023 07:00	28.43	13.38
28/11/2023 08:00	28.24	13.37
28/11/2023 09:00	27.91	13.38
28/11/2023 10:00	27.53	13.38
28/11/2023 11:00	26.9	13.39
28/11/2023 12:00	26.3	13.38
28/11/2023 13:00	37.11	12.77
28/11/2023 14:00	41.74	12.57
28/11/2023 15:00	41.94	12.59
28/11/2023 16:00	42.18	12.62
28/11/2023 17:00	42.3	12.63
28/11/2023 18:00	41.84	12.64
28/11/2023 19:00	40.89	12.66
28/11/2023 20:00	40.11	12.67
28/11/2023 21:00	40.41	12.65
28/11/2023 22:00	36.45	12.84
28/11/2023 23:00	27.24	13.31
29/11/2023 00:00	27.7	13.36
29/11/2023 01:00	27.55	13.36
29/11/2023 02:00	27.19	13.34
29/11/2023 03:00	27.29	13.34
29/11/2023 04:00	27.19	13.34
29/11/2023 05:00	27.27	13.33
29/11/2023 06:00	27.36	13.33
29/11/2023 07:00	27.42	13.34
29/11/2023 08:00	27.27	13.35
29/11/2023 09:00	27.16	13.36
29/11/2023 10:00	26.76	13.38
29/11/2023 11:00	26.53	13.4
29/11/2023 12:00	25.92	13.41
29/11/2023 13:00	36.7	12.77
29/11/2023 14:00	41.04	12.56

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
29/11/2023 15:00	40.88	12.58
29/11/2023 16:00	41.29	12.6
29/11/2023 17:00	41.38	12.62
29/11/2023 18:00	41.33	12.62
29/11/2023 19:00	41.02	12.65
29/11/2023 20:00	40.75	12.65
29/11/2023 21:00	40.65	12.65
29/11/2023 22:00	36.52	12.84
29/11/2023 23:00	25.89	13.3
30/11/2023 00:00	26.3	13.34
30/11/2023 01:00	26.19	13.34
30/11/2023 02:00	25.99	13.32
30/11/2023 03:00	26.08	13.31
30/11/2023 04:00	26.36	13.33
30/11/2023 05:00	26.5	13.33
30/11/2023 06:00	26.48	13.34
30/11/2023 07:00	26.48	13.35
30/11/2023 08:00	26.2	13.37
30/11/2023 09:00	25.74	13.38
30/11/2023 10:00	25.52	13.39
30/11/2023 11:00	25.23	13.4
30/11/2023 12:00	24.95	13.41
30/11/2023 13:00	36.01	12.77
30/11/2023 14:00	40.64	12.55
30/11/2023 15:00	41.48	12.58
30/11/2023 16:00	41.68	12.61
30/11/2023 17:00	41.71	12.62
30/11/2023 18:00	41.38	12.64
30/11/2023 19:00	41.05	12.64
30/11/2023 20:00	40.78	12.65
30/11/2023 21:00	40.63	12.64
30/11/2023 22:00	36.58	12.84
30/11/2023 23:00	24.94	13.29
01/12/2023 00:00	24.89	13.3

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
01/12/2023 01:00	25.08	13.31
01/12/2023 02:00	25.22	13.32
01/12/2023 03:00	25.06	13.32
01/12/2023 04:00	25.05	13.32
01/12/2023 05:00	25.14	13.33
01/12/2023 06:00	25.07	13.33
01/12/2023 07:00	24.88	13.32
01/12/2023 08:00	24.75	13.32
01/12/2023 09:00	24.36	13.33
01/12/2023 10:00	23.96	13.34
01/12/2023 11:00	23.62	13.34
01/12/2023 12:00	23.44	13.34
01/12/2023 13:00	35.93	12.79
01/12/2023 14:00	41.02	12.56
01/12/2023 15:00	41.61	12.59
01/12/2023 16:00	41.34	12.59
01/12/2023 17:00	41.5	12.59
01/12/2023 18:00	41.61	12.59
01/12/2023 19:00	41.63	12.61
01/12/2023 20:00	41.18	12.63
01/12/2023 21:00	40.65	12.63
01/12/2023 22:00	36.61	12.82
01/12/2023 23:00	23.96	13.25
02/12/2023 00:00	24.32	13.28
02/12/2023 01:00	24.29	13.28
02/12/2023 02:00	24.46	13.29
02/12/2023 03:00	24.62	13.29
02/12/2023 04:00	24.66	13.28
02/12/2023 05:00	25.2	13.3
02/12/2023 06:00	25.5	13.31
02/12/2023 07:00	25.45	13.31
02/12/2023 08:00	25.25	13.32
02/12/2023 09:00	25.02	13.33
02/12/2023 10:00	25.04	13.35

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
02/12/2023 11:00	24.78	13.37
02/12/2023 12:00	24.74	13.37
02/12/2023 13:00	37.01	12.78
02/12/2023 14:00	41.61	12.57
02/12/2023 15:00	41.79	12.58
02/12/2023 16:00	42.05	12.6
02/12/2023 17:00	42.34	12.61
02/12/2023 18:00	42.13	12.63
02/12/2023 19:00	41.75	12.64
02/12/2023 20:00	41.4	12.65
02/12/2023 21:00	41.33	12.64
02/12/2023 22:00	37.43	12.82
02/12/2023 23:00	24.38	13.28
03/12/2023 00:00	24.55	13.31
03/12/2023 01:00	24.48	13.31
03/12/2023 02:00	24.59	13.3
03/12/2023 03:00	25.04	13.32
03/12/2023 04:00	25.45	13.33
03/12/2023 05:00	25.78	13.33
03/12/2023 06:00	25.5	13.32
03/12/2023 07:00	25.69	13.32
03/12/2023 08:00	25.45	13.33
03/12/2023 09:00	25.13	13.35
03/12/2023 10:00	24.75	13.35
03/12/2023 11:00	24.37	13.35
03/12/2023 12:00	24.12	13.35
03/12/2023 13:00	24.1	13.35
03/12/2023 14:00	23.96	13.35
03/12/2023 15:00	24.1	13.37
03/12/2023 16:00	24.3	13.38
03/12/2023 17:00	28.12	13.19
03/12/2023 18:00	42.11	12.63
03/12/2023 19:00	42.12	12.63
03/12/2023 20:00	42.06	12.62

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
03/12/2023 21:00	28.72	13.13
03/12/2023 22:00	24.47	13.27
03/12/2023 23:00	24.67	13.3
04/12/2023 00:00	24.36	13.28
04/12/2023 01:00	24.14	13.27
04/12/2023 02:00	24.25	13.28
04/12/2023 03:00	24.09	13.27
04/12/2023 04:00	24.36	13.27
04/12/2023 05:00	24.43	13.26
04/12/2023 06:00	24.63	13.26
04/12/2023 07:00	24.84	13.28
04/12/2023 08:00	24.97	13.29
04/12/2023 09:00	25.25	13.31
04/12/2023 10:00	25.14	13.31
04/12/2023 11:00	24.8	13.32
04/12/2023 12:00	24.38	13.33
04/12/2023 13:00	36.45	12.76
04/12/2023 14:00	41.4	12.55
04/12/2023 15:00	41.65	12.57
04/12/2023 16:00	41.98	12.6
04/12/2023 17:00	42.61	12.64
04/12/2023 18:00	42.62	12.65
04/12/2023 19:00	42.41	12.64
04/12/2023 20:00	41.96	12.63
04/12/2023 21:00	41.63	12.62
04/12/2023 22:00	37.19	12.81
04/12/2023 23:00	24.16	13.24
05/12/2023 00:00	24.15	13.23
05/12/2023 01:00	24.34	13.24
05/12/2023 02:00	24.18	13.25
05/12/2023 03:00	24.12	13.24
05/12/2023 04:00	24.13	13.23
05/12/2023 05:00	24.3	13.25
05/12/2023 06:00	24.44	13.25

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
05/12/2023 07:00	24.25	13.25
05/12/2023 08:00	24.13	13.27
05/12/2023 09:00	24.19	13.31
05/12/2023 10:00	24.43	13.34
05/12/2023 11:00	24.32	13.36
05/12/2023 12:00	24.16	13.36
05/12/2023 13:00	36.73	12.77
05/12/2023 14:00	41.7	12.58
05/12/2023 15:00	41.73	12.59
05/12/2023 16:00	42.22	12.61
05/12/2023 17:00	42.55	12.63
05/12/2023 18:00	42.27	12.63
05/12/2023 19:00	42.2	12.62
05/12/2023 20:00	42.13	12.62
05/12/2023 21:00	42.04	12.6
05/12/2023 22:00	37.64	12.8
05/12/2023 23:00	24.28	13.24
06/12/2023 00:00	24.29	13.23
06/12/2023 01:00	24.15	13.23
06/12/2023 02:00	24.4	13.23
06/12/2023 03:00	24.53	13.23
06/12/2023 04:00	24.58	13.24
06/12/2023 05:00	24.71	13.24
06/12/2023 06:00	24.68	13.24
06/12/2023 07:00	24.42	13.24
06/12/2023 08:00	24.11	13.27
06/12/2023 09:00	24.01	13.3
06/12/2023 10:00	23.83	13.32
06/12/2023 11:00	23.93	13.34
06/12/2023 12:00	24.13	13.36
06/12/2023 13:00	36.43	12.78
06/12/2023 14:00	41.28	12.55
06/12/2023 15:00	41.56	12.54
06/12/2023 16:00	41.82	12.57

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
06/12/2023 17:00	42.4	12.61
06/12/2023 18:00	42.33	12.63
06/12/2023 19:00	42.12	12.64
06/12/2023 20:00	41.62	12.64
06/12/2023 21:00	41.61	12.63
06/12/2023 22:00	37.42	12.82
06/12/2023 23:00	23.76	13.24
07/12/2023 00:00	23.95	13.24
07/12/2023 01:00	23.91	13.24
07/12/2023 02:00	23.77	13.23
07/12/2023 03:00	23.86	13.24
07/12/2023 04:00	23.93	13.24
07/12/2023 05:00	24.25	13.24
07/12/2023 06:00	24.35	13.26
07/12/2023 07:00	24.58	13.28
07/12/2023 08:00	25.1	13.31
07/12/2023 09:00	25.45	13.35
07/12/2023 10:00	25.02	13.36
07/12/2023 11:00	24.66	13.36
07/12/2023 12:00	24.52	13.37
07/12/2023 13:00	36.57	12.78
07/12/2023 14:00	41.27	12.55
07/12/2023 15:00	41.63	12.57
07/12/2023 16:00	41.81	12.58
07/12/2023 17:00	41.88	12.6
07/12/2023 18:00	42.1	12.65
07/12/2023 19:00	41.79	12.67
07/12/2023 20:00	41.66	12.65
07/12/2023 21:00	41.34	12.64
07/12/2023 22:00	37.17	12.83
07/12/2023 23:00	25.19	13.25
08/12/2023 00:00	25.39	13.26
08/12/2023 01:00	25.66	13.26
08/12/2023 02:00	25.45	13.26

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
08/12/2023 03:00	25.64	13.26
08/12/2023 04:00	25.67	13.27
08/12/2023 05:00	25.74	13.27
08/12/2023 06:00	25.85	13.27
08/12/2023 07:00	26.14	13.31
08/12/2023 08:00	26.24	13.34
08/12/2023 09:00	26.22	13.36
08/12/2023 10:00	26.18	13.35
08/12/2023 11:00	26.05	13.4
08/12/2023 12:00	25.45	13.4
08/12/2023 13:00	37.38	12.79
08/12/2023 14:00	41.8	12.56
08/12/2023 15:00	42.16	12.57
08/12/2023 16:00	42.35	12.59
08/12/2023 17:00	42.61	12.62
08/12/2023 18:00	42.92	12.63
08/12/2023 19:00	42.79	12.64
08/12/2023 20:00	42.62	12.64
08/12/2023 21:00	42.33	12.63
08/12/2023 22:00	37.74	12.83
08/12/2023 23:00	24.88	13.26
09/12/2023 00:00	24.84	13.25
09/12/2023 01:00	25.13	13.25
09/12/2023 02:00	25.01	13.25
09/12/2023 03:00	25.19	13.24
09/12/2023 04:00	25.43	13.25
09/12/2023 05:00	25.48	13.26
09/12/2023 06:00	25.49	13.27
09/12/2023 07:00	25.23	13.27
09/12/2023 08:00	24.74	13.28
09/12/2023 09:00	24.71	13.33
09/12/2023 10:00	24.89	13.35
09/12/2023 11:00	32.33	13.26
09/12/2023 12:00	32.41	13.25

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
09/12/2023 13:00	38.31	12.76
09/12/2023 14:00	41.29	12.55
09/12/2023 15:00	41.52	12.57
09/12/2023 16:00	41.97	12.59
09/12/2023 17:00	42.34	12.61
09/12/2023 18:00	42.42	12.62
09/12/2023 19:00	42.49	12.62
09/12/2023 20:00	42.09	12.63
09/12/2023 21:00	41.71	12.62
09/12/2023 22:00	37.65	12.82
09/12/2023 23:00	24.29	13.25
10/12/2023 00:00	24.51	13.24
10/12/2023 01:00	24.45	13.24
10/12/2023 02:00	24.42	13.24
10/12/2023 03:00	24.36	13.24
10/12/2023 04:00	24.43	13.24
10/12/2023 05:00	24.92	13.25
10/12/2023 06:00	25.1	13.26
10/12/2023 07:00	24.99	13.27
10/12/2023 08:00	24.45	13.28
10/12/2023 09:00	24.29	13.31
10/12/2023 10:00	24.14	13.34
10/12/2023 11:00	24	13.36
10/12/2023 12:00	23.86	13.35
10/12/2023 13:00	23.33	13.33
10/12/2023 14:00	23.4	13.35
10/12/2023 15:00	23.02	13.36
10/12/2023 16:00	23.2	13.36
10/12/2023 17:00	27.34	13.2
10/12/2023 18:00	41.6	12.62
10/12/2023 19:00	41.79	12.63
10/12/2023 20:00	41.87	12.62
10/12/2023 21:00	28.54	13.14
10/12/2023 22:00	23.84	13.26

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
10/12/2023 23:00	23.85	13.25
11/12/2023 00:00	24.17	13.25
11/12/2023 01:00	23.95	13.24
11/12/2023 02:00	23.94	13.24
11/12/2023 03:00	24.16	13.24
11/12/2023 04:00	24.29	13.25
11/12/2023 05:00	24.48	13.24
11/12/2023 06:00	24.63	13.26
11/12/2023 07:00	24.36	13.25
11/12/2023 08:00	23.58	13.25
11/12/2023 09:00	24.05	13.31
11/12/2023 10:00	24.22	13.34
11/12/2023 11:00	24.16	13.36
11/12/2023 12:00	23.98	13.35
11/12/2023 13:00	35.97	12.76
11/12/2023 14:00	41.37	12.56
11/12/2023 15:00	41.75	12.57
11/12/2023 16:00	42.11	12.6
11/12/2023 17:00	42.48	12.62
11/12/2023 18:00	42.14	12.63
11/12/2023 19:00	42.11	12.63
11/12/2023 20:00	42.17	12.62
11/12/2023 21:00	41.93	12.62
11/12/2023 22:00	37.44	12.82
11/12/2023 23:00	23.72	13.25
12/12/2023 00:00	24.06	13.24
12/12/2023 01:00	24.14	13.24
12/12/2023 02:00	24.13	13.24
12/12/2023 03:00	24.15	13.24
12/12/2023 04:00	24.37	13.25
12/12/2023 05:00	24.46	13.25
12/12/2023 06:00	24.58	13.25
12/12/2023 07:00	24.3	13.26
12/12/2023 08:00	23.55	13.26

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
12/12/2023 09:00	23.49	13.3
12/12/2023 10:00	23.74	13.34
12/12/2023 11:00	24.1	13.37
12/12/2023 12:00	24.13	13.37
12/12/2023 13:00	36.49	12.77
12/12/2023 14:00	41.35	12.55
12/12/2023 15:00	41.57	12.57
12/12/2023 16:00	41.75	12.59
12/12/2023 17:00	42.19	12.62
12/12/2023 18:00	42.32	12.62
12/12/2023 19:00	42.25	12.63
12/12/2023 20:00	41.7	12.63
12/12/2023 21:00	41.4	12.63
12/12/2023 22:00	37.22	12.82
12/12/2023 23:00	23.79	13.26
13/12/2023 00:00	24.04	13.26
13/12/2023 01:00	24.23	13.25
13/12/2023 02:00	24.44	13.25
13/12/2023 03:00	24.46	13.25
13/12/2023 04:00	24.28	13.24
13/12/2023 05:00	24.12	13.24
13/12/2023 06:00	24.26	13.25
13/12/2023 07:00	24.34	13.25
13/12/2023 08:00	23.92	13.26
13/12/2023 09:00	24.11	13.3
13/12/2023 10:00	24.44	13.34
13/12/2023 11:00	24.47	13.36
13/12/2023 12:00	24.7	13.38
13/12/2023 13:00	36.64	12.79
13/12/2023 14:00	41.28	12.56
13/12/2023 15:00	41.22	12.58
13/12/2023 16:00	41.59	12.6
13/12/2023 17:00	42.12	12.62
13/12/2023 18:00	42.29	12.64

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
13/12/2023 19:00	41.58	12.65
13/12/2023 20:00	41.45	12.65
13/12/2023 21:00	41.48	12.64
13/12/2023 22:00	37.26	12.84
13/12/2023 23:00	25.69	13.31
14/12/2023 00:00	26.08	13.33
14/12/2023 01:00	25.86	13.33
14/12/2023 02:00	25.82	13.33
14/12/2023 03:00	25.76	13.33
14/12/2023 04:00	26.01	13.32
14/12/2023 05:00	25.93	13.31
14/12/2023 06:00	26.05	13.3
14/12/2023 07:00	25.64	13.3
14/12/2023 08:00	25.77	13.33
14/12/2023 09:00	25.8	13.37
14/12/2023 10:00	25.94	13.41
14/12/2023 11:00	25.44	13.41
14/12/2023 12:00	25.23	13.41
14/12/2023 13:00	36.63	12.79
14/12/2023 14:00	41.19	12.55
14/12/2023 15:00	41.48	12.57
14/12/2023 16:00	41.4	12.6
14/12/2023 17:00	41.98	12.62
14/12/2023 18:00	42.25	12.64
14/12/2023 19:00	41.59	12.64
14/12/2023 20:00	41.25	12.65
14/12/2023 21:00	40.75	12.65
14/12/2023 22:00	36.79	12.84
14/12/2023 23:00	24.43	13.28
15/12/2023 00:00	25.31	13.31
15/12/2023 01:00	25.25	13.31
15/12/2023 02:00	25.41	13.3
15/12/2023 03:00	25.22	13.29
15/12/2023 04:00	25.23	13.29

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
15/12/2023 05:00	25.43	13.28
15/12/2023 06:00	25.73	13.3
15/12/2023 07:00	25.6	13.31
15/12/2023 08:00	25.18	13.35
15/12/2023 09:00	25.1	13.36
15/12/2023 10:00	25.05	13.39
15/12/2023 11:00	25.16	13.42
15/12/2023 12:00	25.09	13.42
15/12/2023 13:00	36.57	12.78
15/12/2023 14:00	40.98	12.54
15/12/2023 15:00	41.48	12.57
15/12/2023 16:00	41.81	12.6
15/12/2023 17:00	42.24	12.63
15/12/2023 18:00	42.27	12.63
15/12/2023 19:00	42.04	12.64
15/12/2023 20:00	41.53	12.64
15/12/2023 21:00	41.41	12.63
15/12/2023 22:00	37.51	12.82
15/12/2023 23:00	23.81	13.26
16/12/2023 00:00	24.51	13.29
16/12/2023 01:00	24.6	13.29
16/12/2023 02:00	24.95	13.29
16/12/2023 03:00	25.03	13.29
16/12/2023 04:00	24.89	13.27
16/12/2023 05:00	24.64	13.27
16/12/2023 06:00	24.6	13.26
16/12/2023 07:00	24.21	13.25
16/12/2023 08:00	23.73	13.28
16/12/2023 09:00	24.12	13.33
16/12/2023 10:00	24.31	13.38
16/12/2023 11:00	24.48	13.39
16/12/2023 12:00	24.8	13.4
16/12/2023 13:00	36.21	12.77
16/12/2023 14:00	41.17	12.56

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
16/12/2023 15:00	41.48	12.58
16/12/2023 16:00	41.88	12.61
16/12/2023 17:00	42	12.62
16/12/2023 18:00	42.05	12.63
16/12/2023 19:00	41.41	12.64
16/12/2023 20:00	40.92	12.65
16/12/2023 21:00	40.77	12.65
16/12/2023 22:00	36.76	12.86
16/12/2023 23:00	24.14	13.27
17/12/2023 00:00	24.54	13.27
17/12/2023 01:00	24.59	13.27
17/12/2023 02:00	24.66	13.26
17/12/2023 03:00	24.78	13.25
17/12/2023 04:00	24.4	13.24
17/12/2023 05:00	24.32	13.25
17/12/2023 06:00	24.41	13.25
17/12/2023 07:00	24.16	13.26
17/12/2023 08:00	24.47	13.31
17/12/2023 09:00	24.59	13.34
17/12/2023 10:00	24.59	13.37
17/12/2023 11:00	24.18	13.37
17/12/2023 12:00	24.37	13.39
17/12/2023 13:00	24.35	13.39
17/12/2023 14:00	24.37	13.4
17/12/2023 15:00	24.6	13.42
17/12/2023 16:00	24.53	13.46
17/12/2023 17:00	27.34	13.24
17/12/2023 18:00	41.31	12.64
17/12/2023 19:00	40.93	12.66
17/12/2023 20:00	41.1	12.69
17/12/2023 21:00	29.03	13.21
17/12/2023 22:00	25.46	13.36
17/12/2023 23:00	25.66	13.36
18/12/2023 00:00	25.68	13.35

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
18/12/2023 01:00	25.61	13.32
18/12/2023 02:00	25.78	13.32
18/12/2023 03:00	25.81	13.32
18/12/2023 04:00	25.87	13.32
18/12/2023 05:00	26.06	13.33
18/12/2023 06:00	26.23	13.34
18/12/2023 07:00	26.13	13.35
18/12/2023 08:00	26.2	13.36
18/12/2023 09:00	25.95	13.37
18/12/2023 10:00	25.28	13.38
18/12/2023 11:00	24.95	13.39
18/12/2023 12:00	24.9	13.39
18/12/2023 13:00	36.42	12.77
18/12/2023 14:00	40.97	12.55
18/12/2023 15:00	41.34	12.57
18/12/2023 16:00	41.51	12.6
18/12/2023 17:00	41.65	12.62
18/12/2023 18:00	41.61	12.63
18/12/2023 19:00	41.34	12.64
18/12/2023 20:00	40.58	12.66
18/12/2023 21:00	40.46	12.66
18/12/2023 22:00	36.47	12.85
18/12/2023 23:00	25.56	13.29
19/12/2023 00:00	26.06	13.34
19/12/2023 01:00	25.83	13.33
19/12/2023 02:00	26.12	13.33
19/12/2023 03:00	26.39	13.34
19/12/2023 04:00	26.43	13.34
19/12/2023 05:00	26.38	13.34
19/12/2023 06:00	26.49	13.34
19/12/2023 07:00	26.28	13.35
19/12/2023 08:00	26.09	13.36
19/12/2023 09:00	25.76	13.38
19/12/2023 10:00	25.4	13.39

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
19/12/2023 11:00	25.17	13.4
19/12/2023 12:00	25.17	13.41
19/12/2023 13:00	36.28	12.79
19/12/2023 14:00	40.75	12.55
19/12/2023 15:00	41.09	12.58
19/12/2023 16:00	41.2	12.59
19/12/2023 17:00	41.52	12.61
19/12/2023 18:00	41	12.64
19/12/2023 19:00	40.72	12.65
19/12/2023 20:00	40.63	12.64
19/12/2023 21:00	40.23	12.65
19/12/2023 22:00	36.13	12.85
19/12/2023 23:00	24.09	13.26
20/12/2023 00:00	24.75	13.29
20/12/2023 01:00	25.03	13.31
20/12/2023 02:00	25.02	13.29
20/12/2023 03:00	25.26	13.29
20/12/2023 04:00	25.36	13.29
20/12/2023 05:00	25.81	13.33
20/12/2023 06:00	25.99	13.34
20/12/2023 07:00	25.93	13.34
20/12/2023 08:00	25.63	13.36
20/12/2023 09:00	25.28	13.38
20/12/2023 10:00	24.93	13.39
20/12/2023 11:00	24.93	13.4
20/12/2023 12:00	24.84	13.41
20/12/2023 13:00	36.37	12.77
20/12/2023 14:00	40.75	12.54
20/12/2023 15:00	41.01	12.57
20/12/2023 16:00	41.23	12.6
20/12/2023 17:00	41.55	12.63
20/12/2023 18:00	41.69	12.67
20/12/2023 19:00	41.35	12.65
20/12/2023 20:00	40.85	12.66

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
20/12/2023 21:00	40.48	12.66
20/12/2023 22:00	36.48	12.88
20/12/2023 23:00	25.78	13.33
21/12/2023 00:00	25.99	13.37
21/12/2023 01:00	26.28	13.36
21/12/2023 02:00	26.31	13.36
21/12/2023 03:00	26.39	13.36
21/12/2023 04:00	26.58	13.36
21/12/2023 05:00	26.88	13.36
21/12/2023 06:00	26.98	13.36
21/12/2023 07:00	27.31	13.37
21/12/2023 08:00	27.49	13.38
21/12/2023 09:00	27.05	13.39
21/12/2023 10:00	26.73	13.4
21/12/2023 11:00	26.01	13.4
21/12/2023 12:00	25.93	13.4
21/12/2023 13:00	36.52	12.78
21/12/2023 14:00	40.99	12.56
21/12/2023 15:00	41.05	12.53
21/12/2023 16:00	41.27	12.57
21/12/2023 17:00	41.04	12.66
21/12/2023 18:00	40.83	12.69
21/12/2023 19:00	40.42	12.7
21/12/2023 20:00	40.01	12.7
21/12/2023 21:00	39.99	12.69
21/12/2023 22:00	36.52	12.9
21/12/2023 23:00	28.58	13.36
22/12/2023 00:00	28.7	13.4
22/12/2023 01:00	28.85	13.39
22/12/2023 02:00	29.26	13.39
22/12/2023 03:00	29.5	13.38
22/12/2023 04:00	29.58	13.38
22/12/2023 05:00	29.96	13.38
22/12/2023 06:00	30.64	13.37

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
22/12/2023 07:00	30.75	13.38
22/12/2023 08:00	30.88	13.39
22/12/2023 09:00	30.62	13.39
22/12/2023 10:00	30.21	13.39
22/12/2023 11:00	29.45	13.4
22/12/2023 12:00	28.65	13.39
22/12/2023 13:00	36.71	12.84
22/12/2023 14:00	40.99	12.6
22/12/2023 15:00	41.28	12.61
22/12/2023 16:00	41.54	12.64
22/12/2023 17:00	41.07	12.68
22/12/2023 18:00	40.72	12.72
22/12/2023 19:00	39.82	12.75
22/12/2023 20:00	39.38	12.76
22/12/2023 21:00	39.43	12.75
22/12/2023 22:00	36.38	12.93
22/12/2023 23:00	31.51	13.38
23/12/2023 00:00	31.69	13.4
23/12/2023 01:00	31.69	13.39
23/12/2023 02:00	31.59	13.38
23/12/2023 03:00	31.66	13.37
23/12/2023 04:00	31.55	13.36
23/12/2023 05:00	31.57	13.36
23/12/2023 06:00	31.8	13.35
23/12/2023 07:00	31.82	13.36
23/12/2023 08:00	31.92	13.37
23/12/2023 09:00	31.54	13.38
23/12/2023 10:00	30.84	13.39
23/12/2023 11:00	29.92	13.39
23/12/2023 12:00	29.18	13.39
23/12/2023 13:00	35.78	12.89
23/12/2023 14:00	Maintenance_DIW	Maintenance_DIW
23/12/2023 15:00	Maintenance_DIW	Maintenance_DIW
23/12/2023 16:00	47.68	12.73

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
23/12/2023 17:00	47.5	12.76
23/12/2023 18:00	46.74	12.77
23/12/2023 19:00	46.2	12.78
23/12/2023 20:00	46.15	12.78
23/12/2023 21:00	46.06	12.77
23/12/2023 22:00	43.13	12.95
23/12/2023 23:00	38.31	13.41
24/12/2023 00:00	38.5	13.43
24/12/2023 01:00	38.48	13.42
24/12/2023 02:00	38.2	13.41
24/12/2023 03:00	38.32	13.41
24/12/2023 04:00	38.22	13.4
24/12/2023 05:00	38.29	13.4
24/12/2023 06:00	38.33	13.4
24/12/2023 07:00	38.54	13.4
24/12/2023 08:00	38.59	13.4
24/12/2023 09:00	38.32	13.4
24/12/2023 10:00	37.89	13.39
24/12/2023 11:00	37.37	13.39
24/12/2023 12:00	37.15	13.38
24/12/2023 13:00	37.03	13.38
24/12/2023 14:00	36.68	13.39
24/12/2023 15:00	36.86	13.39
24/12/2023 16:00	36.81	13.4
24/12/2023 17:00	38.5	13.26
24/12/2023 18:00	45.99	12.75
24/12/2023 19:00	45.52	12.76
24/12/2023 20:00	45.4	12.76
24/12/2023 21:00	38.36	13.23
24/12/2023 22:00	37.57	13.4
24/12/2023 23:00	37.88	13.4
25/12/2023 00:00	37.69	13.4
25/12/2023 01:00	37.79	13.4
25/12/2023 02:00	37.49	13.39

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
25/12/2023 03:00	37.59	13.39
25/12/2023 04:00	37.63	13.39
25/12/2023 05:00	37.75	13.39
25/12/2023 06:00	37.91	13.39
25/12/2023 07:00	38.3	13.4
25/12/2023 08:00	38.18	13.4
25/12/2023 09:00	37.96	13.4
25/12/2023 10:00	37.67	13.4
25/12/2023 11:00	37.24	13.41
25/12/2023 12:00	36.67	13.41
25/12/2023 13:00	43.44	12.89
25/12/2023 14:00	47.11	12.67
25/12/2023 15:00	48.1	12.66
25/12/2023 16:00	48.19	12.68
25/12/2023 17:00	47.69	12.72
25/12/2023 18:00	47.26	12.74
25/12/2023 19:00	46.94	12.76
25/12/2023 20:00	46.34	12.78
25/12/2023 21:00	46.27	12.77
25/12/2023 22:00	43.51	12.94
25/12/2023 23:00	38.38	13.41
26/12/2023 00:00	38.33	13.43
26/12/2023 01:00	38.26	13.42
26/12/2023 02:00	37.87	13.41
26/12/2023 03:00	37.73	13.39
26/12/2023 04:00	37.86	13.39
26/12/2023 05:00	37.87	13.38
26/12/2023 06:00	38.18	13.39
26/12/2023 07:00	38.41	13.4
26/12/2023 08:00	38.31	13.4
26/12/2023 09:00	38.06	13.4
26/12/2023 10:00	37.31	13.41
26/12/2023 11:00	36.63	13.41
26/12/2023 12:00	35.83	13.41

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
26/12/2023 13:00	44.17	12.84
26/12/2023 14:00	47.81	12.66
26/12/2023 15:00	47.94	12.67
26/12/2023 16:00	48.02	12.69
26/12/2023 17:00	48.01	12.72
26/12/2023 18:00	47.71	12.74
26/12/2023 19:00	47.25	12.75
26/12/2023 20:00	47.02	12.76
26/12/2023 21:00	46.4	12.76
26/12/2023 22:00	42.8	12.94
26/12/2023 23:00	36.24	13.37
27/12/2023 00:00	36.42	13.4
27/12/2023 01:00	36.54	13.4
27/12/2023 02:00	36.55	13.39
27/12/2023 03:00	36.63	13.4
27/12/2023 04:00	36.5	13.4
27/12/2023 05:00	36.74	13.39
27/12/2023 06:00	36.69	13.39
27/12/2023 07:00	36.64	13.4
27/12/2023 08:00	36.2	13.4
27/12/2023 09:00	35.81	13.41
27/12/2023 10:00	35.59	13.42
27/12/2023 11:00	34.95	13.43
27/12/2023 12:00	34.23	13.43
27/12/2023 13:00	43.44	12.85
27/12/2023 14:00	47.17	12.65
27/12/2023 15:00	48.17	12.65
27/12/2023 16:00	48.66	12.65
27/12/2023 17:00	48.67	12.69
27/12/2023 18:00	47.9	12.75
27/12/2023 19:00	47.53	12.75
27/12/2023 20:00	46.72	12.76
27/12/2023 21:00	46.22	12.76
27/12/2023 22:00	42.65	12.94

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
27/12/2023 23:00	34.8	13.34
28/12/2023 00:00	35.44	13.4
28/12/2023 01:00	35.6	13.4
28/12/2023 02:00	35.41	13.38
28/12/2023 03:00	35.42	13.37
28/12/2023 04:00	35.4	13.37
28/12/2023 05:00	35.44	13.37
28/12/2023 06:00	35.67	13.37
28/12/2023 07:00	35.69	13.38
28/12/2023 08:00	35.01	13.39
28/12/2023 09:00	34.39	13.41
28/12/2023 10:00	33.93	13.42
28/12/2023 11:00	33.58	13.43
28/12/2023 12:00	33.22	13.43
28/12/2023 13:00	32.88	13.42
28/12/2023 14:00	32.73	13.43
28/12/2023 15:00	32.69	13.44
28/12/2023 16:00	32.08	13.46
28/12/2023 17:00	34.73	13.26
28/12/2023 18:00	46.89	12.66
28/12/2023 19:00	46.58	12.68
28/12/2023 20:00	46.5	12.68
28/12/2023 21:00	35.77	13.2
28/12/2023 22:00	33.32	13.38
28/12/2023 23:00	33.52	13.39
29/12/2023 00:00	33.21	13.38
29/12/2023 01:00	33.3	13.38
29/12/2023 02:00	33.37	13.37
29/12/2023 03:00	33.68	13.36
29/12/2023 04:00	34.67	13.38
29/12/2023 05:00	34.95	13.39
29/12/2023 06:00	35.16	13.4
29/12/2023 07:00	35.06	13.41
29/12/2023 08:00	34.8	13.42

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
29/12/2023 09:00	34.35	13.42
29/12/2023 10:00	33.91	13.43
29/12/2023 11:00	33.38	13.44
29/12/2023 12:00	33	13.45
29/12/2023 13:00	32.88	13.45
29/12/2023 14:00	32.57	13.46
29/12/2023 15:00	31.42	13.42
29/12/2023 16:00	31.51	13.42
29/12/2023 17:00	35.64	13.27
29/12/2023 18:00	49.65	12.7
29/12/2023 19:00	49.71	12.7
29/12/2023 20:00	49.64	12.7
29/12/2023 21:00	36.68	13.22
29/12/2023 22:00	32.92	13.35
29/12/2023 23:00	33.47	13.38
30/12/2023 00:00	33.75	13.39
30/12/2023 01:00	33.96	13.39
30/12/2023 02:00	34.23	13.38
30/12/2023 03:00	34.78	13.4
30/12/2023 04:00	34.86	13.41
30/12/2023 05:00	34.78	13.4
30/12/2023 06:00	34.93	13.41
30/12/2023 07:00	34.7	13.41
30/12/2023 08:00	34.16	13.42
30/12/2023 09:00	33.41	13.43
30/12/2023 10:00	32.81	13.44
30/12/2023 11:00	32.7	13.45
30/12/2023 12:00	32.6	13.46
30/12/2023 13:00	32.58	13.46
30/12/2023 14:00	31.21	13.4
30/12/2023 15:00	31.78	13.43
30/12/2023 16:00	31.93	13.45
30/12/2023 17:00	35.29	13.28
30/12/2023 18:00	49.35	12.66

Date Time	CEMS NO _x 7%O ₂	CEMS O ₂
30/12/2023 19:00	49.5	12.67
30/12/2023 20:00	49.2	12.68
30/12/2023 21:00	36.07	13.21
30/12/2023 22:00	32.55	13.35
30/12/2023 23:00	32.61	13.36
31/12/2023 00:00	32.52	13.34
31/12/2023 01:00	32.91	13.33
31/12/2023 02:00	32.94	13.33
31/12/2023 03:00	32.91	13.31
31/12/2023 04:00	33.31	13.33
31/12/2023 05:00	33.59	13.36
31/12/2023 06:00	33.57	13.36
31/12/2023 07:00	33.41	13.36
31/12/2023 08:00	33.33	13.4
31/12/2023 09:00	32.97	13.42
31/12/2023 10:00	32.75	13.44
31/12/2023 11:00	32.76	13.46
31/12/2023 12:00	32.89	13.46
31/12/2023 13:00	32.56	13.47
31/12/2023 14:00	30.83	13.4
31/12/2023 15:00	30.23	13.39
31/12/2023 16:00	30.64	13.43
31/12/2023 17:00	34.51	13.27
31/12/2023 18:00	49.05	12.67
31/12/2023 19:00	49.23	12.68
31/12/2023 20:00	48.92	12.68
31/12/2023 21:00	35.8	13.19
31/12/2023 22:00	31.94	13.32
31/12/2023 23:00	32.55	13.35

การตรวจสอบความถูกต้องของการทำงานของระบบ
ประจำปี 2566 : System Audit



CEMS Inspection Sheet

1.รายละเอียดโครงการ (Plant Information)

ชื่อโครงการ (Project Name)	บริษัท ราช เอ็นเนอร์จี้ ระยอง จำกัด
ที่ตั้ง (Location)	สวนอุตสาหกรรม เอส เอส พี ระยอง ตำบลหนองละลอก อำเภอบ้านค่าย จังหวัดระยอง
ชื่อปล่อง (Stack name)	HRSG 2
วันที่ตรวจสอบ (Inspection Date)	2 ตุลาคม 2566
เจ้าหน้าที่ประจำโครงการ (Plant Operation Name)	คุณทวีศักดิ์ บุตรพรม และ คุณอนันต์ชัย กาสัน
เจ้าของโครงการ (Project Owner Name)	คุณอติพร ยนตรดิษฐาวรร
เจ้าหน้าที่ตรวจสอบ (ALS Inspector Name)	คุณอนุวัฒน์ ม่วงแพร



2.รายละเอียดของ CEMs (CEMs System Information)

Parameter	Analyzer Brand	Model	Serial No.	Range	System Type	Sample Condition	Sampling Technique	Unit
NO _x	ABB	AO2020	3.412514.1	0-100	Direct System	Cool-Dry	Direct Extractive	ppm
SO ₂	ABB	AO2020	3.412514.1	0-25	Direct System	Cool-Dry	Direct Extractive	ppm
CO	ABB	AO2020	3.412514.1	0-200	Direct System	Cool-Dry	Direct Extractive	ppm
O ₂	ABB	EL3020	43137181	0-25	Direct System	Cool-Dry	Direct Extractive	%
Opacity	DURAG	D-R290 2G	-	0-20% or 100%	Direct System	-	-	%Opa, mg/m ³
Flow Rate	DURAG	D-FL100	-	0-600,000 kg/h	Direct System	-	-	Nm ³ /hr
Temp	Rosemount	IPAQ C530	-	0-200	-	-	-	°C



3.ตำแหน่งติดตั้ง เครื่องตรวจวัด (Analyzer)

What to Check	Observations
ความสูงปล่อง	35 เมตร
ตำแหน่งติดตั้งเครื่องตรวจวัด (Analyzer) <ul style="list-style-type: none"> - Gas Analyzer - Flow Meter 	HRSg ground Floor
การเข้าถึง (Accessibility) ตำแหน่งเครื่อง CEMs (เช่น ลิฟท์ บันได เป็นต้น)	สถานนีตั้งอยู่ที่พื้นสามารถเดินเข้าถึงได้
ความสะดวกในการบำรุงรักษาเครื่องตรวจวัด (Analyzer)	สะดวกในการบำรุงรักษา

4.Probe and Probe Location Checks

What to Check	Observations
การเข้าถึง (Accessibility) ตำแหน่ง Probe CEMs (เช่น ลิฟท์ บันได เป็นต้น)	เข้าถึงด้วยบันได และบันไดป็น
ชนิดของ Probe เก็บตัวอย่าง	Stainless steel
ระยะความสูงของจุดติดตั้ง Probe เป็นไปตามข้อกำหนดหรือไม่	เป็นไปตามข้อกำหนด ว่าต้องไม่ต่ำกว่า 0.5 เท่าของ เส้นผ่าศูนย์กลางจากปลายปล่อง
ระยะจากปลาย Probe อยู่ห่างจากผนังของปล่องมากกว่า 1 เมตร	ปลาย Probe มีระยะห่างจากผนังปล่อง 1.5 เมตร



5.Flow Monitors

What to Check	Observations
มีการทดสอบ Flow Monitors ให้เป็นไปตาม QA/QC Plan หรือไม่	มีการทดสอบ และมีกำหนดไว้ใน QA/QC Plan ตาม TOR การจัดจ้างเหมาบำรุงรักษาระบบ CEMs
มีการเปลี่ยนอุปกรณ์ หรือ Filters ตามข้อกำหนดใน QA/QC Plan หรือไม่	มีแผนบำรุงรักษา และอยู่ใน QA/QC Plan ตาม TOR การจัดจ้างเหมาบำรุงรักษาระบบ CEMs
มีการทำ QA/QC temperature และ stack pressure สำหรับแปลงค่า flow monitor ตาม QA/QC Plan หรือไม่	มีการทดสอบตามกำหนด QA/QC Plan แต่ยังไม่สามารถพิสูจน์ในเรื่องของการแปลงค่า flow ได้
มีการทดสอบ Factor ในการแปลงค่า flow monitor หรือไม่	พบว่ามีการใช้ Factor ในการแปลงค่า flow monitor แต่ไม่พบรายงานการทดสอบความใช้ได้ของการรายงานผล
เมื่อระบบมีปัญหา มีการแสดงสัญญาณเตือน หรือไฟเตือนหรือไม่	ระบบมีไฟและสัญญาณเตือน เพื่อบ่งบอกถึงความผิดปกติ ทั้งที่ตู้ Analyzer และที่ Control room



6. Dilution Air Systems (Including Air Cleaning Subsystem)

What to Check	Observations
มีการจัดทำข้อกำหนดในการเปลี่ยน orifice ใน QA/QC Plan และมีการเปลี่ยน orifice หรือไม่	N/A
มีการทดสอบ dilution ratio ของ orifice ใน QA/QC Plan หรือไม่	N/A
มีการทดสอบระบบอัดอากาศ (Supplied Air system flow rate) ในการคำนวณ dilution ratio หรือไม่	N/A
มีการบันทึกการปรับ correction factors เมื่อมีการปรับเปลี่ยนค่าต่างๆ ที่มีผลต่อการรายงานผล	N/A
มีการทดสอบ inlet and outlet pressures ของ CO ₂ air cleaner filter ให้เป็นไปตาม QA/QC Plan หรือไม่	N/A
มีข้อกำหนดในการจัดการ air cleaning filters และ drying agents ให้เป็นไปตาม QA/QC plan หรือไม่	N/A

หมายเหตุ : N/A = Not Applicable



7.Source Level Extractive Systems

What to Check	Observations
ตรวจสอบว่ามีหยดน้ำบริเวณท่อนำตัวอย่างที่เข้าสู่ห้องระบบหรือไม่	ไม่พบหยดน้ำอยู่ภายในสายนำตัวอย่างก่อนเข้าสู่ระบบปรับสภาพตัวอย่าง (Gas Condition Unit)
ระบบอากาศแห้ง (Air Dry System) มีการบันทึกค่าอุณหภูมิหรือไม่ และมีการกำหนดช่วงอุณหภูมิ ตาม QA/QC Plan และทำการตรวจสอบอุณหภูมิหรือไม่	มีการบันทึกค่าอุณหภูมิของ Gas cooler เพื่อเทียบเกณฑ์ และมีการกำหนดช่วงของอุณหภูมิ และทำการทดสอบตาม QA/QC Plan แต่ผลการทดสอบไม่อยู่ในเกณฑ์ที่กำหนด

8.Analyzers

What to Check	Observations
มีการปรับเปลี่ยน (เชื้อเพลิง ระบบบำบัด กำลังการผลิต หรืออื่นๆ) ของแหล่งกำเนิดในการตรวจวัดหรือไม่	เดินเครื่องจักรด้วยก๊าซธรรมชาติเท่านั้น ไม่มีการเปลี่ยนแปลงการใช้เชื้อเพลิง
เมื่อระบบมีปัญหาการแสดงผลสัญญาณเตือน หรือไฟเตือน และมีการอธิบายความหมายของสัญญาณเตือน หรือไฟเตือนหรือไม่	ระบบมีไฟเตือนสถานะ ทั้งที่ตู้ Analyzer และ Control room และสามารถอธิบายถึงสัญญาณเตือนได้
ตรวจสอบช่วงการตรวจวัด (Range) ว่าเป็นไปตามข้อกำหนด หรือไม่	เป็นไปตามข้อกำหนด
ตรวจสอบอัตราการดึงตัวอย่าง (Sampling Flow) เป็นไปตามข้อกำหนดหรือไม่	มีการตรวจสอบอัตราการการดึงตัวอย่าง และมีการกำหนดไว้อยู่ใน QA/QC Plan ตามการจัดจ้างเหมาบำรุงรักษา
กรณีที่มีการทำ Dilution System มีการเปลี่ยน correction factors ที่ใช้ในการแปลผล หลังจากการทดสอบครั้งล่าสุดหรือไม่	N/A

หมายเหตุ : N/A = Not Applicable



9. Calibration Gases

What to Check	Observations
ชนิดและประเภทของก๊าซมาตรฐาน (Standard Gas) - Span gas	O ₂ 21% Balance Nitrogen (Linde) Gas Mixture EPA Protocol (Airgas)
- Zero Gas	N ₂ 99.999% (Linde)
วันหมดอายุของก๊าซมาตรฐาน (Standard Gas) - Span gas	Mix Gas : Feb 19, 2025 O ₂ : Sep 21, 2025
ช่วงความเข้มข้นของก๊าซมาตรฐาน เป็นไปตามช่วงที่กำหนดหรือไม่ Point 1: 20% - 30% of span Point 2: 50% -60% of span Point 3: 80% - 100% of span	มีในช่วง Point 3 : 80% - 100% of span เท่านั้น คือ CO : 168.9 ppm NO ₂ : 80.0 ppm SO ₂ : 20.47 ppm O ₂ : 20.2 %
มีเอกสารยืนยันมาตรฐาน zero air gas ให้เป็นไปตามข้อกำหนดหรือไม่ (Supplier certification): SO ₂ , NO _x and THC < 0.1 ppm CO < 1 ppm, and CO ₂ < 400 ppm	มีการใช้ N ₂ 99.999% ในการทำ Zero air gas และมีเอกสารในการยืนยัน
มีการจดบันทึกความเข้มข้นของก๊าซมาตรฐาน ในการทำ Calibration error and linearity test หรือไม่	มีการจดบันทึกใน QA/QC ตามการจัดจ้างเหมาของ บำรุงรักษา และ แผนการบำรุงรักษาของตัวโรง
ตรวจสอบแรงดันก๊าซมาตรฐานมีค่า < 150 psi. หรือไม่ Span gas	แรงดัน >150 psi ในทุก Standard Gas
มีการใช้ Stainless steel regulators สำหรับ SO ₂ cylinders หรือไม่	ใช้ Stainless steel regulators สำหรับถังก๊าซที่มี SO ₂ เป็นองค์ประกอบ

หมายเหตุ : N/A = Not Applicable



10.ระบบ DAHS

What to Check	Observations
มีระบบบันทึกข้อมูลที่ครอบคลุมพารามิเตอร์และช่วงการตรวจวัด (Range) ของระบบตรวจวัดหรือไม่	มีระบบการบันทึกควบคุมข้อมูลที่ครอบคลุมช่วงการตรวจวัดและครบทุกพารามิเตอร์
มีการตรวจสอบความถูกต้องของข้อมูลจากเครื่องตรวจวัดที่เข้าระบบบันทึกข้อมูลหรือไม่	มีการตรวจสอบข้อมูลจากเครื่องการตรวจวัดที่เข้าระบบบันทึกข้อมูล ตาม TOR การจัดจ้างเหมาบำรุงรักษา
มีการใส่ correction factors ใน DAHS และมีการบันทึกการใส่ correction factors และการแก้ไขหรือไม่	มีการใส่ Factors ลงใน DAHS ป้องกันข้อมูลผิดพลาด และมีการใส่ Factors สำหรับการแปลงค่า % opacity เป็น mg/m^3 ของฝุ่น
ระบบการส่งถ่ายข้อมูลเป็นชนิดใด (เช่น Analog, Digital)	การแสดงผลข้อมูลของเครื่องตรวจวัดเป็น Analog Output ที่ 4-20 mA แต่การส่งสัญญาณจากเครื่องไป Control Room เป็นแบบ ModBus TCP/IP โดยผ่าน ทางสาย Lan (Digital)

11.Optional Control Equipment Parameter Monitoring

What to Check	Observations
มี QA/QC Plan ในการยืนยันช่วงการตรวจวัด (Range) ให้ครอบคลุมและเหมาะสมหรือไม่	QA/QC Plan มีการกำหนดช่วงตรวจวัดที่ครอบคลุมและเหมาะสม
มีการจดบันทึกการขาดหายของข้อมูลหรือไม่	มีการบันทึกสัญญาณและข้อมูลลงในแบบฟอร์ม
มีวิธีการชดเชย ข้อมูลที่ขาดหายไปหรือไม่	มีการชดเชยหรือมีการแสดงถึงข้อมูลที่ขาดหายไป



12.Maintenance Log Review

What to Check	Observations
สามารถทดสอบการดึงข้อมูลจากระบบบันทึกข้อมูลได้หรือไม่	สามารถทำการดึงข้อมูลย้อนหลังจากระบบบันทึกข้อมูลได้
มีการแสดงข้อผิดพลาดของระบบตรวจวัดในระบบบันทึกข้อมูลหรือไม่	มีการแสดงข้อผิดพลาดของระบบตรวจวัด ลงในระบบบันทึกข้อมูล และแสดงที่ตู้ Analyzer และ Control room
มีการจัดทำคำอธิบายข้อผิดพลาดและการแจ้งเตือนของระบบตรวจวัดหรือไม่	มีการจัดทำคำอธิบายถึงข้อผิดพลาด และแจ้งเตือนของระบบตรวจวัดไว้ใน QA/QC Plan
มีแนวทางการแก้ไขปัญหาในการเดินระบบเบื้องต้นหรือไม่	มีการกำหนดไว้การบำรุงรักษาระบบ CEMs และการจัดจ้างเหมาบำรุงรักษาจาก Outsource
มีการจดบันทึกการปรับแต่งระบบตรวจวัดหรือไม่	มีการจดบันทึกการปรับแต่ง
มีอุปกรณ์และชิ้นส่วนสำหรับการบำรุงรักษาระบบหรือไม่	มีอุปกรณ์และชิ้นส่วนสำหรับการบำรุงรักษาครบทุกอุปกรณ์

13.QA/QC Plan Review

What to Check	Observations
มีการกำหนดช่วงเวลาการทำ QA/QC หรือไม่ และมีการปรับปรุงให้เป็นปัจจุบันหรือไม่	มีการกำหนดเวลาทำ QA/QC และกำลังดำเนินการให้เป็นปัจจุบัน
มีการกำหนดการปรับปรุงเครื่องมือที่ไม่เป็นไปตามข้อกำหนดหรือไม่	มีการกำหนดปรับปรุงเครื่องมือทุกๆ 3 เดือน และหรือตาม Plan ของการบำรุงรักษา
มีการเก็บบันทึกการบำรุงรักษาเครื่องวัดหรือไม่	มีบันทึกทุกครั้งในการบำรุงรักษา

หมายเหตุ : ดัดแปลงจาก 40 CFR Part 60 และ 40 CFR Part 75 regulations



14. ข้อเสนอแนะในการทำการทดสอบ

หัวข้อ	ปัญหาและข้อเสนอแนะ
แผนการดำเนินการทดสอบ	<p>การกำหนดแผนและช่วงเวลาการทดสอบความใช้ได้ของระบบแนะนำให้มีการทดสอบให้ครบตามข้อกำหนด โดยแบ่งช่วงการทดสอบให้เหมาะสมต่อการตรวจสอบการทำงานของ Plan โดยมีการทดสอบประกอบด้วย</p> <p>*การทดสอบของระบบ Gas Analyzer</p> <ul style="list-style-type: none"> - Analyzer Calibration - System Bias Check - Audit Opacity (PS-11) - Flow RATA Test
แผนการดำเนินการทดสอบ (ภายนอก)	<p>การทดสอบในส่วนของการทำ System Bias Check พบว่ามีค่าการดำเนินการ มีเปอร์เซ็นต์ ในความ Error สูง จึงควรมีการทวนสอบก่อน ก่อนที่จะมีการดำเนินการจากภายนอก</p>

การตรวจสอบความถูกต้องของการทำงานของระบบ
ประจำปี 2566 : Performance Audit



Analysis / Test Report

Client : Nexif Ratch Energy Rayong Co.,Ltd.
222 Moo 5, T.Nonglalo, A. Bankhai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 2328279
Date Received : Mar 22, 2023
Date Reported : Mar 28, 2023
Report Number : 2592236-1

Page 1 of 2

Sample Number 2328279-1
Sampled Date Mar 22, 2023
Sample Description Emission from Stationary Source
Location HRSG # 2
Parameter NOx

Relative Accuracy Test Audit Report

Run No.	Date	Time		Raw Data at Actual O2		Corrected Value at 7% O2		Difference
		Start	Stop	CEMs (ppm)	RM (ppm)	CEMs (ppm)	RM (ppm)	
1	22 Mar 23	10:30	10:50	27.48	27.68	44.39	43.42	-0.97
2*	22 Mar 23	10:51	11:11	27.48	27.52	44.33	43.07	-1.26
3*	22 Mar 23	11:12	11:32	27.42	27.43	44.19	42.94	-1.24
4*	22 Mar 23	11:33	11:53	27.37	27.36	44.12	42.89	-1.23
5	22 Mar 23	11:54	12:14	27.35	27.36	44.10	42.92	-1.18
6	22 Mar 23	12:15	12:35	27.35	27.43	44.09	43.09	-1.00
7	22 Mar 23	12:36	12:56	27.47	27.64	44.26	43.49	-0.77
8	22 Mar 23	12:57	13:17	27.32	27.62	43.87	43.39	-0.48
9	22 Mar 23	13:18	13:38	27.40	27.66	43.96	43.43	-0.53
10	22 Mar 23	13:39	13:59	27.60	27.68	44.27	43.43	-0.84
11	22 Mar 23	14:00	14:20	27.38	27.67	43.93	43.45	-0.48
12	22 Mar 23	14:21	14:41	27.39	27.61	43.99	43.36	-0.63
Average						44.10	43.33	-0.76
Confidence Coefficient (CC)								0.19
Relative Accuracy (Compared with RM) (%)								2.21
Relative Accuracy Criteria ^{1/} (Compared with RM)								≤ 20%

Reference Method : US EPA Method 7E

Remark: * Sample with * is a rejected data

^{1/} Relative Accuracy Criteria of NOx is refer to 40 CFR Part 60 Appendix B : Performance Specification Test 2 (PS-2)

RA Result is within Criteria

Technical Management

Wichan Choonharat
Manager

ทะเบียนเลขที่ ว-204-ค-6113

Approved by

Sarayuth Jittrantont
Assistant General Manager
ทะเบียนเลขที่ ว-204-ค-4702

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Analysis / Test Report

Client : Nexif Ratch Energy Rayong Co.,Ltd.
222 Moo 5, T.Nonglalo, A. Bankhai, Rayong Thailand 21120
P/O : PO-2302-0003
Project Name :
Project Location :

Lot ID: 2328279

Date Received : Mar 22, 2023
Date Reported : Mar 28, 2023
Report Number : 2592236-1

Page 2 of 2

Sample Number 2328279-1
Sampled Date Mar 22, 2023
Sample Description Emission from Stationary Source
Location HRS# 2
Parameter O2

Relative Accuracy Test Audit Report

Run No.	Date	Time		Raw Data at Actual		Difference
		Start	Stop	CEMs (%)	RM (%)	
1*	22 Mar 23	10:30	10:50	12.29	12.04	-0.26
2*	22 Mar 23	10:51	11:11	12.28	12.02	-0.26
3*	22 Mar 23	11:12	11:32	12.27	12.02	-0.25
4	22 Mar 23	11:33	11:53	12.28	12.03	-0.24
5	22 Mar 23	11:54	12:14	12.28	12.04	-0.24
6	22 Mar 23	12:15	12:35	12.28	12.05	-0.23
7	22 Mar 23	12:36	12:56	12.27	12.07	-0.21
8	22 Mar 23	12:57	13:17	12.24	12.05	-0.19
9	22 Mar 23	13:18	13:38	12.24	12.05	-0.19
10	22 Mar 23	13:39	13:59	12.23	12.04	-0.19
11	22 Mar 23	14:00	14:20	12.24	12.05	-0.19
12	22 Mar 23	14:21	14:41	12.24	12.05	-0.19
Average				12.26	12.05	-0.21
Confidence Coefficient (CC)						-
Relative Accuracy (Compared in Actual) (%)						0.21
Relative Accuracy Criteria ^{1/} (%)						≤ 1%

Reference Method : US EPA Method 3A

Remark: * Sample with * is a rejected data

^{1/} Relative Accuracy Criteria of O2 is refer to 40 CFR Part 60 Appendix B : Performance Specification Test 3 (PS-3)

RA Result is within Criteria

Sampled By : Saksit Phaisanphisut

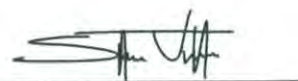
Technical Management



Wichan Choonharat
Manager

ทะเบียนเลขที่ ว-204-ค-6113

Approved by



Sarayuth Jitranont
Assistant General Manager
ทะเบียนเลขที่ ว-204-ค-4702

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