CONTRACT NO. SPW 12/2021

SHEK WU HUI EFFLUENT POLISHING PLANT – MAIN WORKS

UNDER FURTHER ENVIRONMENTAL PERMIT NO. FEP-02/474/2013

MONTHLY ENVIRONMENTAL MONITORING & AUDIT REPORT

DECEMBER 2021

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Contract No. SPW 12/2021

Shek Wu Hui Effluent Polishing Plant – Main Work

Monthly Environmental Monitoring & Audit Report

December 2021

(January 2022)

Verified by:	W. K. Chiu
Position:	Independent Environmental Checker
Date:	13 January 2022

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EXECUTIVE SUMMARY

i. This is the Environmental Monitoring and Audit (EM&A) Monthly Report – December 2021 of Shek Wu Hui Effluent Polishing Plant – Main Work under Further Environmental Permit no. FEP-02/474/2013 (Hereafter as "the Project"). This is the 4th EM&A report prepared by Environmental Team under Contract No. SPW 12/2021, presenting the environmental monitoring findings and information recorded during the period of 01 December 2021 to 31 December 2021. The cut-off date of reporting is at the end of each reporting month.

ii. In the reporting month, the principal work activities of individual contracts are conducted as follows:

Contract No. DC/2018/06 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sludge Treatment Facilities and 132 kV Primary Substation

- RC works
- Excavation works
- Sewerage and drainage works
- ELS works
- Backfilling
- ABWF works

Contract No. DC/2018/07 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sewage Treatment Facilities

- ELS works
- R.C. Structure works
- Pre-bored H piles
- Demolition works
- Excavation
- E&M installation and T&C works

Contract No. DE/2018/03 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Sidestream Treatment Facilities and EM&M Works for Sludge Treatment Facilities

- ELS (Sidestream Treatment Facilities)
- Installation of EOT at UV
- AFA and MFA System Installation
- Penstock and Stoplog Installation
- Effluent Pump Installation
- UV System Installation
- Electrical Installation for UV System No.1 Effluent TPS & Effluent Lift-up PS

Contract No. DE/2018/04 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – E&M Works for Sewage Teatment Facilities

- Testing and Commission of Temporary Filtrate Equalisation Tank.
- Testing and Commission of Existing Primary Sedimentation Tank No. 4 & 6.
- Testing and Commission of Temporary Primary Sludge Thickener and its accessories .

Air Quality Monitoring

iii. 1-hour and 24-hour Total Suspended Particulates (TSP) monitoring was conducted at two monitoring station. 24-hour TSP shall be sampled at least once in every 6 days, while sampling for 1-hour TSP shall be at least 3 times in every 6 day in the reporting month.

iv. No action or limit level exceedance was recorded in this reporting period.

Noise Monitoring

v. Noise monitoring was conducted at one noise monitoring station once per week in the reporting month.

vi. No action or limit level exceedance was recorded in this reporting period.

Ecological Monitoring

vii. Ecological monitoring conducted on a weekly basis at both high and low tides (it is considered high tide when tidal levels are above 1.5m and low tide when tidal level are below 1.5m at Tsim Bei Tsui Station). The magnitude of how much above or below 1.5m was subject to tidal conditions of that week as it varied throughout different times of the year. Nonetheless, the high and low tide relative to that week's tidal condition were taken into consideration.

viii. No action or limit level exceedance was recorded in this reporting period

Site Inspections and Audit

ix. The Environmental Team (ET) conducted weekly site inspections on 6, 7, 14, 15, 21 and 28 December 2021 and biweekly landscape inspection on 14 (DE/2018/03 & DE/2018/04), 15 (DC/2018/06 & DC/2018/07) and 28 December 2021. IEC attended the joint site inspection on 28 December 2021. No non-compliance was found during the site inspection while reminders on environmental measures were recommended.

Complaints, Notifications of Summons and Successful Prosecutions

x. No environmental complaint, notification of summons and successful prosecution regarding the construction works was recorded in the reporting period.

Reporting Changes

xi. There are no particular reporting changes.

Future Key Issues

xii. In coming reporting month, the principal work activities of individual contracts are anticipated as follows:

Contract No. DC/2018/06 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sludge Treatment Facilities and 132 kV Primary Substation

- RC works
- Excavation works
- Sewerage and drainage works
- ELS works
- Backfilling
- ABWF works

Contract No. DC/2018/07 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sewage Treatment Facilities

- ELS works
- R.C. Structure works
- Pre-bored H piles
- Demolition works
- Excavation
- E&M installation and T&C works

Contract No. DE/2018/03 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Sidestream Treatment Facilities and EM&M Works for Sludge Treatment Facilities

- ELS (Sidestream Treatment Facilities)
- Installation of EOT at UVP
- AFA and MFA System Installation
- Penstock and Stoplog Installation
- Effluent Pump Installation
- UV System Installation
- Delivery and Installation of Temporary Container LV Switch Room for UV and Effluent Pumping Station
- Electrical Installation for UV System No.1 Effluent TPS & Effluent Lift-up PS

Contract No. DE/2018/04 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – E&M Works for Sewage Teatment Facilities

- Testing and Commission of Temporary Filtrate Equalisation Tank.
- Testing and Commission of Temporary Primary Sludge Thickener and its accessories .

1 Introduction

1.1 Scope of the Report

1.1.1. Lam Environmental Services Limited (LES) has been appointed to work as the Environmental Team (ET) under Environmental Permit (EP) No. FEP-02/474/2013 to implement the Environmental Monitoring and Audit (EM&A) programme as stipulated in the EM&A Manual of the approved Environmental Impact Assessment (EIA) Report for North East New Territories New Development Areas (Register No.: AEIAR-175/2013).

1.1.2. In accordance with Clause 3.4 stated in FEP-02/474/2013, 3 hard copies and 2 electronic copies of Monthly EM&A Report shall be submitted to the Director within 10 working days after the end of each reporting month throughout the entire construction period.

1.1.3. According to Section 9.4.1.1 of the Project EM&A Manual, the Monthly EM&A Report should be submitted within 10 working days at the end of each reporting month, with the first report due in the month after construction commences.

1.2 Structure of the Report

Section 1 ***Introduction*** – details the scope and structure of the report.

Section 2 ***Project Background*** – summarizes background and scope of the project, site description, project organization and contact details of key personnel during the reporting period.

Section 3 ***Status of Regulatory Compliance*** – summarizes the status of valid Environmental Permits / Licenses during the reporting period.

Section 4 ***Monitoring Requirements*** – summarizes all monitoring parameters, monitoring methodology and equipment, monitoring locations, monitoring frequency, criteria and respective event and action plan and monitoring programmes.

Section 5 ***Monitoring Results*** – summarizes the monitoring results obtained in the reporting period.

Section 6 ***Compliance Audit*** – summarizes the auditing of monitoring results, all exceedances environmental parameters.

Section 7 **Environmental Site Audit** – summarizes the findings of weekly site inspections undertaken within the reporting period, with a review of any

relevant follow-up actions within the reporting period.

Section 8 ***Complaints, Notification of summons and Prosecution*** – summarizes the cumulative statistics on complaints, notification of summons and prosecution

Section 9 ***Conclusion***

2 Project Background

2.1 Background

2.1.1. The existing Shek Wu Hui Sewage Treatment Works (SWHSTW) has been operating and maintaining for 30 years by the Drainage Services Department (DSD). It provides secondary level treatment to sewage collected from Sheung Shui, Fanling and adjacent areas. SWHSTW was completed in two stages and expanded progressively in the past years. In 1984, Stage I of SWHSTW was commissioned with design capacity of 60,000 cubic meters per day (m^3 /day) at Average Dry Weather Flow (ADWF). In 2001, Stage II of SWHSTW was completed with design capacity enhanced to 80,000 m^3 /day at ADWF. In 2009, the expansion of SWHSTW was completed and its design capacity was increased to 93,000m^3 /day at ADWF.

2.1.2. Further expansion of SWHSTW has been planned to be carried out in order to cope with the forecast increase in flow from Fanling North and Kwu Tong North New Development Area (NDA) and other NDAs and developments in three phases, namely Phase 1A, 1B and 2, which are later revised to Main Works Stage 1, Stage 2 and Stage 3 respectively. The EIA study report (Register No.: AEIAR-175/2013) for the NENT NDAs Study covered the assessment for the Further Expansion of SWHSTW, which is a designated project under item F.1 and F.2 of Part 1, Schedule 2 of the EIA Ordinance. The location of the project site is shown in ***Figure 2.1.***

A Further EP was applied on 18 January 2018 to assume the responsibility for constructing and operating the SWHEPP Project up to a capacity of 190,000 m^3/day. The Further EP No. FEP-02/474/2013 was issued to DSD as permit holder on 15 February 2018. Due to overlapping of scope with the Further EP currently in force, the Further EP No. FEP-01/474/2013 was subsequently surrendered on 15 August 2018.

2.2 Project Organization and Contact Personnel

2.2.1 Drainage Service Department (DSD) is the overall project controllers for the Project. For the construction phase of the Project, Engineer's Representative, Contractor(s), Environmental Team and Independent Environmental Checker are appointed to manage and control environmental issues.

2.2.2 The project organization and lines of communication with respect to environmental protection works are shown in ***Figure 2.2.*** Key personnel and contact particulars are summarized in ***Table 2.1***.

Table 2.1 Contact Details of Key Personnel

Party	Role	Post	Name	Contact No.
Drainage Services Department (DSD)	Permit Holder	Engineer	Ms. Konica Cheung	2594 7463
AECOM	Supervisor Representative	Resident Engineer	Ms. Bianca Choi	3907 6141
Kwan Lee - Chun Wo Joint Venture	Contractor (DC/2018/06)	Environmental Engineer	Ms. Ruby Hui	6218 6408
		Assistant Environmental Engineer	Mr. Eric Chan	6432 2581
	Contractor (DC/2018/07)	Environmental Engineer	Ms. Tiffany Choi	9789 1027
JEC	Contractor (DE/2018/03)	Environmental Officer	Ms. Juliet Ting	6826 7319
Bestwise	Contractor (DE/2018/04)	Environmental Officer	Mr. Albus Cheung	9731 0831
Meinhardt Infrastructure and Environment Ltd.	Independent Environmental Checker (IEC)	Independent Environmental Checker (IEC)	Mr. W.K. Chiu	2859 5881
Lam Environmental Services Limited	Environmental Team (ET)	Environmental Team Leader (ETL)	Mr. Raymond Dai	2882 3939

2.3 Construction Activities

2.3.1 In the reporting month, the principal work activities conducted of individual contracts are as follow. The layout plans showing the locations of reported construction activities and key PME used for the works contracts are provided in ***Appendix 2.1***.

Contract No. DC/2018/06 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sludge Treatment Facilities and 132 kV Primary Substation

- RC works
- Excavation works
- Sewerage and drainage works
- ELS works
- Backfilling

- ABWF works

Contract No. DC/2018/07 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sewage Treatment Facilities

- ELS works
- R.C. Structure works
- Pre-bored H piles
- Demolition works
- Excavation
- E&M installation and T&C works

Contract No. DE/2018/03 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Sidestream Treatment Facilities and EM&M Works for Sludge Treatment Facilities

- ELS (Sidestream Treatment Facilities)
- Installation of EOT at UV
- AFA and MFA System Installation
- Penstock and Stoplog Installation
- Effluent Pump Installation
- UV System Installation
- Electrical Installation for UV System No.1 Effluent TPS & Effluent Lift-up PS

Contract No. DE/2018/04 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – E&M Works for Sewage Teatment Facilities

- Testing and Commission of Temporary Filtrate Equalisation Tank.
- Testing and Commission of Existing Primary Sedimentation Tank No. 4 & 6.
- Testing and Commission of Temporary Primary Sludge Thickener and its accessories

2.3.2 The number of key PME and their working locations are shown in ***Table 2.2***.

Table 2.2 Summary of key PME and working locations of works contracts

Works Contract	Key PME	Number	Working locations
DC/2018/06	Excavator	7	CHP, Boundary wall & Fence wall near UV No.1, Trench Zone A, San Wan Road
	Mobile crane	2	SDB, SD
	Tower Crane	2	Near Workshop No.2 & Gate 2
	Mobile generator	1	Near Workshop No.2
	Roller	1	Fence wall near UV No.1
DC/2018/07	Drilling rig	2	PST and Inlet
	Excavator	23	MFB, BR2, Inlet and SAS
	Generator	5	BR2 and MFB
	Air compressor	4	PST & inlet
	Mobile Crane	2	PST & inlet
DE/2018/03	Generator	1	UV No.1
	Excavator	2	Sidestream
	Hydraulic Sheet Pile Driver Excavator	1	Sidestream
DE/2018/04	-	-	-

2.3.3 In coming reporting month, the scheduled construction activities of individual contracts are listed as follows:

Contract No. DC/2018/06 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sludge Treatment Facilities and 132 kV Primary Substation

- RC works
- Excavation works
- Sewerage and drainage works
- ELS works

- Backfilling
- ABWF works

Contract No. DC/2018/07 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sewage Treatment Facilities

- ELS works
- R.C. Structure works
- Pre-bored H piles
- Sheetpile Installation
- Demolition works
- Excavation
- E&M installation and T&C works
- ABWF works & BS works

Contract No. DE/2018/03 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Sidestream Treatment Facilities and EM&M Works for Sludge Treatment Facilities

- ELS (Sidestream Treatment Facilities)
- Installation of EOT at UVP
- AFA and MFA System Installation
- Penstock and Stoplog Installation
- Effluent Pump Installation
- UV System Installation
- Delivery and Installation of Temporary Container LV Switch Room for UV and Effluent Pumping Station
- Electrical Installation for UV System No.1 Effluent TPS & Effluent Lift-up PS

Contract No. DE/2018/04 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – E&M Works for Sewage Teatment Facilities

- Testing and Commission of Temporary Filtrate Equalisation Tank.
- Testing and Commission of Temporary Primary Sludge Thickener and its accessories

3 Status of Regulatory Compliance

3.1 Status of Environmental Licensing and Permitting under the Project

3.1.1. A summary of the current status on licences and/or permits on environmental protection pertinent to the Project is shown in ***Table 3.1 to 3.4***.

Table 3.1 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project under Contract No. DC/2018/06

Permits and/or Licences	Permit. No. / Account No.	Valid From	Expiry Date	Status
Notification pursuant to Air Pollution Control (Construction Dust) Regulation	449210 (Portion A & C)	23 Sep 2019	N/A	Valid
	449211 (WM1)	23 Sep 2019	N/A	Valid
Environmental Permit	FEP-02/474/2013	15 Feb 2018	N/A	Valid
Water Pollution Ordinance Licence	WT00035431-2019 (Portion C)	27 Jul 2020	31 Jan 2025	Valid
	WT00035718-2020 (Portion A)	02 Apr 2020	30 Apr 2025	Valid
Billing Account for Disposal of Construction Waste	7035390	11 Oct 2019	N/A	Valid
Registration as a Chemical Waste Producer	5213-624-K3371-01	14 Nov 2019	N/A	Valid
Construction Noise Permit	GW-RN0610-21	01 Sep 2021	28 Feb 2022	Valid
	GW-RN0734-21	05 Oct 2021	31 Mar 2022	Valid

Table 3.2 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project under Contract No. DC/2018/07

Permits and/or Licences	Permit. No. / Account No.	Valid From	Expiry Date	Status
Notification pursuant to Air Pollution Control (Construction Dust) Regulation	449210	23 Sep 2019	N/A	Valid
Environmental Permit	FEP-02/474/2013	15 Feb 2018	N/A	Valid
Water Pollution Ordinance Licence	WT00035727-2020	01 Apr 2020	30 Apr 2025	Valid
Billing Account for Disposal of Construction Waste	7035985	9 Dec 2019	N/A	Valid
Registration as a Chemical Waste Producer	5213-624-K3371-02	6 Jan 2020	N/A	Valid
Construction Noise Permit	GW-RN0432-21	12 Jul 2021	11 Jan 2022	Valid
Admission Ticket for Special Waste	16527	12 Oct 2021	16 Feb 2022	Valid

Table 3.3 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project under Contract No. DE/2018/03

Permits and/or Licences	Permit. No. / Account No.	Valid From	Expiry Date	Status
Notification pursuant to Air Pollution Control (Construction Dust) Regulation	455843 (WA3)	6 May 2020	N/A	Valid
	457212 (WA1-B)	15 Jun 2020	N/A	Valid
	460065 (Sidestream)	16 Sep 2020	N/A	Valid
Environmental Permit	FEP-02/474/2013	15 Feb 2018	N/A	Valid
Water Pollution Ordinance Licence	WT00037220-2020	16 Mar 2021	31 Jan 2026	Valid
Billing Account for Disposal of Construction Waste	7035700	6 Nov 2019	N/A	Valid
Registration as a Chemical Waste Producer	5213-624-T3861-01	14 Apr 2020	N/A	Valid
Construction Noise Permit	GW-RN0484-21	6 Jul 2021	27 Jan 2022	Valid

Table 3.4 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project under Contract No. DE/2018/04

Permits and/or Licences	Permit. No. / Account No.	Valid From	Expiry Date	Status
Notification pursuant to Air Pollution Control (Construction Dust) Regulation	460181	17/09/2020	N/A	Valid
Environmental Permit	FEP-02/474/2013	15 Feb 2018	N/A	Valid
Billing Account for Disposal of Construction Waste	703621912	02 Jan 2020	N/A	Valid
Registration as a Chemical Waste Producer	5213-624-B2592-01	07 Jul 2020	N/A	Valid

3.1.2. Implementation status of the recommended mitigation measures during this report month is presented in ***Appendix 3.1***.

3.2 Summary of submission status under FEP-02/474/2013

3.2.1 A summary of the current status on submission under FEP-02/474/2013 is shown in ***Table 3.5***.

Table 3.5 Summary of submission status under FEP-02/474/2013

EP Condition	Submission	Status
Condition 1.12	Commencement date of construction of the Project	Notified EPD on 8 Oct 2019
Condition 2.3 & 3.1	Updated EM&A Manual	The Manual was confirmed of no further comments by EPD on 17 Jan 2020
Condition 2.4	Management Organization of Main Construction Companies for Contract No.DC/2018/06	Informed EPD on 19 Nov 2019
Condition 2.4	Management Organization of Main Construction Companies for Contract No. DC/2018/07	Informed EPD on 20 Dec 2019
Condition 2.4	Management Organization of Main Construction Companies for Contract No. DE/2018/03	Informed EPD on 19 Feb 2020
Condition 2.4	Management Organization of Main Construction Companies for Contract No. DE/2018/04	Informed EPD on 15 Feb 2020
Condition 2.4	Replacement of Environmental Team Leader	Informed EPD on 13 Sep 2021
Condition 2.4	Replacement of Independent Environmental Checker	Informed EPD on 13 Sep 2021
Condition 2.5	Location Plans for Contract No. DC/2018/06	Deposited to EPD on 19 Nov 2019
Condition 2.5	Location Plans for Contract No. DC/2018/07	Deposited to EPD on 20 Dec 2019
Condition 2.5	Location Plans for Contract No. DE/2018/03	Deposited to EPD on 15 Feb 2020
Condition 2.5	Location Plans for Contract No. DE/2018/04	Deposited to EPD on 18 Sep 2020
Condition 2.6	Submission of Landscape Plan	N/A
Condition 3.3	Baseline Monitoring Report (Ecology)	The Report was first submitted to IEC for review on 22 Nov 2019, and verified on 29 Nov 2019
Condition 3.3	Baseline Monitoring Report	The Report will be submitted to EPD at least 6 weeks before the commencement of Corresponding parts of landscape and visual mitigation measures of the Project

4 Monitoring Requirements

4.1 Noise Monitoring

NOISE MONITORING STATIONS

4.1.1. The noise monitoring stations for the Project are listed and shown in ***Table 4.1*** and ***Figure 4.1***. ***Appendix 4.1*** shows the established Action/Limit Levels for the monitoring works.

Table 4.1 Noise Monitoring Station

Monitoring Station ID	Location
NM1	Wai Loi Tsuen
NM2	Fu Tei Au
NM3	Man Kok Village

NOISE MONITORING PARAMETERS, FREQUENCY AND DURATION

4.1.2. The monitoring parameters, frequency and duration of noise monitoring are summarized in ***Table 4.2***.

Table 4.2 Noise Monitoring Parameters, Frequency and Duration

Monitoring Period	Duration	Sampling Parameter	Sampling Period(1)	Frequency
Impact Monitoring	Throughout the construction phase	1 set of Leq (30 min)	between 0700-1900 hours on normal weekdays;	on a per week basis when noise generating activities are underway

Remark (1): Additional weekly impact monitoring shall be carried out during evening and night-time works if construction works are extended to include works during the hours of 1900-0700

MONITORING EQUIPMENT

4.1.3. Noise monitoring was performed using sound level meter at the designated monitoring locations. The sound level meters shall comply with the International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications. Acoustic calibrator shall be deployed to check the sound level meters at a known sound pressure level. Brand and model of the equipment is given in ***Table 4.3***.

Table 4.3 Noise Monitoring Equipment

Equipment	Brand and Model	Series Number
Integrated Sound Level Meter	LxT1	0004797
Acoustic Calibrator	HLES-02	2019612870

4.1.4. The calibration certificates of the noise monitoring equipment are attached in ***Appendix 4.2***.

SAMPLING PROCEDURE AND MONITORING EQUIPMENT

4.1.5. Monitoring Procedure

(a) Noise measurements shall not be made in fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in m/s

(b) The monitoring station shall normally be at a point 1 m from the exterior of the sensitive receiver building facade and be at a position 1.2 m above the ground. If there is problem with access to the normal monitoring position, an alternative position may be chosen, and a correction to the measurements shall be made. For reference, a correction of +3 dB(A) shall be made to the free field measurements.

(c) The battery condition was checked to ensure the correct functioning of the meter.

(d) Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:

- Frequency weighting: A
- Time weighting: Fast
- Time measurement: Leq (30min) for noise monitoring

(e) Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1.0 dB, the measurement would be considered invalid and repeat of noise measurement would be required after recalibration or repair of the equipment.

(f) The wind speed was checked with the portable wind meter before noise monitoring.

(g) At the end of the monitoring period, the Leq, L90 and L10 were recorded. In addition, site conditions and noise sources were recorded on a record sheet.

4.1.6. Maintenance and Calibration

(a) The microphone head of the sound level and calibrator would be cleaned with soft cloth regularly.

(B) The noise monitoring equipment shall be calibrated annually.

CONSTRUCTION NOISE LEVEL

4.1.7. The construction noise level refers the corrected noise level based on the calculated difference between SPL of the Measured Noise Level and the SPL of the Baseline Noise Level. In the event of the Baseline Noise Level exceeds the Measured Noise Level, no correction would be applied and the Construction Noise Level would be indicated as below baseline noise level (<BL).

EVENT AND ACTION PLAN

4.1.8. Noise Standards for Daytime Construction Activities are specified under EIAO-TM. The Action and Limit levels for construction noise are defined in ***Table 4.4*** and ***Appendix 4.1.*** Should non-compliance of the criteria occurs, action in accordance with the Event and Action Plan in ***Appendix 6.1*** shall be carried out.

Table 4.4 Action and Limit Level for Noise Monitoring

Time Period	Action Level	Limit Level
0700-1900 hrs on normal weekdays	When one documented complaint is received	75 dB

4.2 Air Monitoring

AIR QUALITY MONITORING STATIONS

4.2.1. The air monitoring stations for the Project are listed and shown in ***Table 4.5*** and ***Figure 4.2***.

Table 4.5 Air Monitoring Station

Monitoring Station ID	Location	Measurement
AMS1	House No. 15, Wai Loi Tsuen	1-hour TSP
AMS2	Fu Tei Au	1-hour TSP
AM1a	Site boundary of the Shek Wu Hui STW (East)	24-hour TSP
AM2a	Site boundary of the Shek Wu Hui STW (North)	24-hour TSP

AIR MONITORING PARAMETERS, FREQUENCY AND DURATION

4.2.2. 24-hour TSP shall be sampled at least once in every 6 days, while sampling for 1-hour TSP shall be at least 3 times in every 6 days when the highest dust impact takes place.

4.2.3. One-hour and 24-hour TSP levels should be measured to indicate the impacts of construction dust on air quality.

SAMPLING PROCEDURE AND MONITORING EQUIPMENT

4.2.4. 24-hour TSP Measuring Installation (HVS)

(a) 0.6 – 1.7 m3 per minute adjustable flow range

(b) Equipped with a timing / control device with +/- 5 minutes accuracy for 24 hours operation;

(c) Installed with elapsed-time meter with +/- 2 minutes accuracy for 24 hours operation;

(d) Capable of providing a minimum exposed area of 406 cm2;

(e) Flow control accuracy: +/- 2.5% deviation over 24-hour sampling period;

(f) Equipped with a shelter to protect the filter and sampler;

(g) Incorporated with an electronic mass flow rate controller or other equivalent devices;

(h) Equipped with a flow recorder for continuous monitoring;

(i) Provided with a peaked roof inlet;

(j) Incorporated with a manometer;

(k) Able to hold and seal the filter paper to the sampler housing at horizontal position;

(l) Easily changeable filter; and

(m) Capable of operating continuously for a 24-hour period

Initial calibration of dust monitoring equipment shall be conducted upon installation and thereafter at bi-monthly intervals. The transfer standard shall be traceable to the internationally recognized primary standard and be calibrated annually. All the data should be converted into standard temperature and pressure condition.

24-hour Measuring Procedures

(a) Check the power supply to ensure the sampler works properly.
(b) Remove the filter hold down by loosening the four nuts and carefully centre a new filter, with stamped number upward, on a supporting screen.
(c) Properly align the filter on the screen so that the gasket will form an airtight seal on the outer edges of the filter.
(d) Fasten the filter hold down frame to the filter holder with swing bolts. The pressure applied should be sufficient to avoid air leakage at the edges.
(e) Close shelter lid and secure catch with the aluminum strip.
(f) Record the flow indicator reading and determine the sampler flow rate. If it is outside the acceptable range, adjust the sampler flow rate.
(g) Set the programmable timer and record the starting sampling time, weather condition and the filter identification number.
(h) At the end of sampling, the filter was transferred from the filter holder of the HVS to a filter bag and sent to the accredited laboratory for weighing. The elapsed time was also recorded

4.2.5. 1-hour Measuring Procedures

Portable dust meter will be proposed and sufficient information will be submitted to IC (E) to prove that the instrument is capable of achieving a comparable result as that of the HVS and used for 1-hour sampling

(a) Slide the power switch to turn the power on
(b) Select the period of measurement to 60mins
(c) Check and set the correct time
(d) Select the appropriate unit display for the equipment
(e) Collected the sampled data for analysis

The portable dust meter is calibrated at 2-years interval and checked with HVS yearly to determine the accuracy and validity of the results measured. The checking of portable dust meter will be carried out in order to determine the conversion factor between the portable dust meter and the standard equipment, HVS.

The calibration check is to be considered valid if the calculated correlation coefficient is >0.90.

4.2.6. Maintenance and Calibration

(a) The direct reading dust meter was calibrated at 2-years interval and checked with High Volume Sampler (HVS) yearly to determine the accuracy and validity of the results measured.

(b) Checking of direct reading dust meter will be carried out in order to determine the conversion factor between the direct reading dust meter and the standard equipment, HVS. The comparison check is to be considered valid based on correlation coefficient checked by HOKLAS laboratory

4.2.7. Laboratory measurement / analysis

(a) A clean laboratory with constant temperature and humidity control, and equipped with necessary measuring and conditioning instruments to handle the dust samples collected, shall be available for sample analysis, and equipment calibration and maintenance. The laboratory should be HOKLAS accredited.

(b) Filter paper of size 8" x 10" shall be labelled before sampling. It shall be a clean filter paper with no pinholes, and shall be conditioned in a humidity-controlled chamber for over 24 hours and be pre-weighed before use for the sampling.

(c) After sampling, the filter paper loaded with dust shall be kept in a clean and tightly sealed plastic bag. The filter paper shall then be returned to the laboratory for reconditioning in the humidity-controlled chamber followed by accurate weighing by an electronic balance with readout down to 0.1 mg. The balance shall be regularly calibrated against a traceable standard.

4.2.8. High Volume Sampler (HVS – Model TE-5025A) completed with the appropriate sampling inlets were installed for the 24-hour TSP sampling. 1-hour TSP air quality monitoring was performed by using portable direct reading dust meters at each designated monitoring station. The brand and model of the equipment are given in ***Table 4.6***.

Table 4.6 Air Quality Monitoring Equipment

Equipment	Brand and model	Series Number
Portable direct reading dust meter	Met One BT- 645 / Met One 831	R22586 Y23153 Y23160 X19299
High Volume Sampler	Tisch Total Suspended Particulate Mass Flow Controlled High Volume Air Sampler TE-5025A	HVS001 (Serial number: 0401-1105) HVS003 (Serial number: 1096-2305)
Wind Anemometer	YiGu	YGY-FSXY1

4.2.9. The calibration certificates of the air quality monitoring equipment are attached in ***Appendix 4.2***.

WIND DATA

4.2.10. Hong Wind data monitoring equipment was set up at roof floor (about 4/F) of the SWHSTW control room for logging wind speed and wind direction such that the wind sensors were clear of obstructions or turbulence caused by building. The wind data monitoring equipment was re-calibrated at least once every six months and the wind directions were divided into 16 sections of 22.5 degrees each. The wind data obtained from the on-site wind station during the reporting period is provided in ***Appendix 4.3.***

EVENT AND ACTION PLAN

4.2.11. The Action and Limit Levels for construction air quality are defined in ***Table 4.7*** and ***Appendix 4.1***. Should non-compliance of the air quality criteria occur, action in accordance with the Event and Action Plan in Appendix 6.1 shall be carried out.

Table 4.7 Action and Limit Level for Air Quality Monitoring

Parameter	**Monitoring Station**	**Action Level (**μgm^{-3})	**Limit Level (**μgm^{-3})
24-hour TSP Level	Site boundary of the Shek Wu Hui STW (East)	189	260.0
	Site boundary of the Shek Wu Hui STW (North)	187	
1-hour TSP Level	House No. 15, Wai Loi Tsuen	320	500.0
	Fu Tei Au	322	

4.3. Ecological Monitoring

4.3.8. According to the Updated EM&A Manual, weekly transect at both high and low tides shall be undertaken to identify and enumerate all bird species utilising the river channels and identify any sources of actual or potential disturbance to birds due to construction activities throughout the construction period. ***Appendix 4.1*** shows the established Action/Limit Levels for ecological monitoring works.

4.3.9. The monitoring should be conducted by the ET and supervised by a qualified ecologist who will be a member of the ET.

MONITORING LOCATIONS

4.3.10. Transect and point count surveys were proposed within the 500m boundary of Ng Tung River, Sheung Yue River and Shek Sheung River of the assessment area. Three transects and seven-point count locations during high and low tides were applied. These locations are shown in ***Figure 4.3*** and summarized in ***Table 4.8*** The photo of each transect is provided in ***Appendix 5.6***.

Table 4.8 Ecological Monitoring Stations

Monitoring Stations	Descriptions	Influenced by Tidal Action
Transect T1	Along Ng Tung River	No
Point Count Location P1		
Point Count Location P2		
Transect T2		Yes
Point Count Location P3		
Point Count Location P4		
Point Count Location P5	At Shek Sheung River (Low-flow Channel)	No
Transect T3	Along Shek Sheung River & Sheung Yue River	Yes

Point Count Location P6	At Shek Sheung River	Yes
Point Count Location P7	At Intersection between Sheung Yue River and Shek Sheung River	Yes

MONITORING PARAMETERS, FREQUENCY AND DURATION

4.3.11. Monitoring surveys were conducted on a weekly basis at both high and low tides (it is considered high tide when tidal levels are above 1.5m and low tide when tidal level are below 1.5m at Tsim Bei Tsui Station). The magnitude of how much above or below 1.5m was subject to tidal conditions of that week as it varied throughout different times of the year. Nonetheless, the high and low tide relative to that week's tidal condition were taken into consideration. The ecological monitoring schedule is shown in ***Appendix 5.1***.

MONITORING METHODOLOGY

4.3.12. Transect survey was undertaken along the concerned rivers (Ng Tung River, Sheung Yue River and Shek Sheung River) adjacent to proposed construction activities. As the sensitive receivers (large waterbirds) are easily visible and the surveyor has used auxiliary equipment such as camera(s) and binoculars (magnification 7-10x). The transect route only follows one bank of these rivers.

4.3.13. At point count locations, surveyors identified and recorded bird species which were seen or heard along the river channel. For each point count, surveyors quantitatively recorded all species seen and heard for the duration of five minutes up to the distance where birds were still detectable. All avifauna along the walk transect were recorded. Noticeable behaviours (e.g. breeding behaviours such as nesting and presence of recently fledged juveniles, roosting and feeding activities, etc.) were recorded as well.

4.3.14. Ornithological nomenclature used in report should follow *The Avifauna of Hong Kong* (*Carey et al. (2001)*, *The Birds of Hong Kong and South China (Viney et al. (2005))* and the most recent updated list from other sources (e.g. Hong Kong Bird Watching Society).

4.3.15. Weather conditions, tidal information at the time of the survey and other noticeable activities occurring within or in the vicinity of the survey areas (e.g. ongoing routine drainage channel maintenance works and other human activities that could create disturbances to birds) were recorded

ANALYTICAL METHODOLOGY

4.3.16. The number and species of waterbirds utilizing the rivers fluctuate every day naturally. Therefore, the survey data were collectively analyzed on a monthly basis to increase the sample size and to reduce random error on one survey day. Since occurrence of waterbirds has distinctive seasonal pattern, the construction phase data for all waterbirds and representative waterbirds were compared with the baseline data for the respective month and season. The representatives of waterbirds are listed in ***Table 4.9***.

Table 4.9 Representative Waterbirds

Species Name	Common Name	Chinese Name
Egretta garzetta	Little Egret	小白鷺
Ardea cinerea	Grey Heron	蒼鷺
Ardeola bacchus	Chinese Pond Heron	池鷺
Phalacrocorax carbo	Great Cormorant	普通鸕鷀
Ardea alba	Great Egret	大白鷺
Bubulcus coromandus	Eastern Cattle Egret	牛背鷺

4.3.17. When a decline in abundance of all or representative waterbird is identified, one-tailed Student t-test was adopted to statistically analyse whether the drop is significant. If the collected data for the reporting month fails to show no significant difference from that in the baseline phase at 95% confidence level, the action level will be triggered. Likewise, the limit level is set at 99% confidence level.

4.3.18. In addition, if important behaviours such as breeding, brooding, nesting and presence of recently fledged juveniles of species of conservation importance are observed, the Resident Engineer, Contractor and IEC should be notified immediately after the survey. The Contractor should review current construction programme and minimize disturbance due to construction activities

5 Monitoring Results

5.0.1 The environmental monitoring will be implemented based on the division of works areas of each designed projects. Overall layout showing work areas and monitoring stations is shown in ***Figure 2.1*** and ***Figure 4.1 – 4.3*** respectively**.**

5.0.2 The environment monitoring schedules for reporting month and coming month are presented in ***Appendix 5.1*****.**

5.1 Noise Monitoring Results

5.1.1 Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in ***Appendix 5.2***.

5.1.2 No action or limit level exceedance was recorded in this reporting month.

5.2 Air Monitoring Results

5.2.1 Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in ***Appendix 5.3***.

5.2.2 No action or limit level exceedance was recorded in this reporting month.

5.3 Ecology Monitoring Results

5.3.1 Details of ecological Monitoring results in the reporting month are provided in ***Appendix 5.4***.

5.3.2 No Action Level and Limit Level was triggered for ecological monitoring in the reporting month.

5.3.3 Site observation in the reporting month shows that construction activities are similar to previous months. However, moderate to High level of Construction noises from the Project Site were recorded during the monitoring. Although no Action Level and Limit Level was triggered, mitigation measures such as noise barrier in green and hoarding in green around the construction site near Sheung Yue River was recommended.

5.3.4 The monitoring work will continue next month to evaluate any construction impact on waterbirds .

5.4 Waste Management

5.4.1 The quantities of waste for disposal in the Reporting Period are summarized in ***Table 5.1*** to ***5.4***. The Monthly Summary Waste Flow Table is shown in ***Appendix 5.7***. Whenever possible, materials were reused on-site as far as practicable.

Table 5.1 Summary of Quantities of Inert C&D Materials and C&D Wastes for Contract No. DC/2018/06

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2021)
Hard Rock and Large Broken Concrete (Inert) (in '000m^3)	0	0	0
Reused in this Contract (Inert) (in '000m^3)	0	0	0.263
Reused in other Projects (Inert) (in '000m^3)	0	0	13.317
Disposal as Public Fill (Inert) (in '000m^3)	0.685	1.612	9.809
Metals (in '000kg)	0	0	10.334
Paper / Cardboard Packing (in '000kg)	0.009	0.007	0.038
Plastics (in '000kg)	0	0	0.049
Chemical Wastes (in '000kg)	0	0	0
General Refuses (in '000m^3)	0.116	0.132	0.751

Table 5.2 Summary of Quantities of Inert C&D Materials and C&D Wastes for Contract No. DC/2018/07

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2021)
Hard Rock and Large Broken Concrete (Inert) (in '000m^3)	0	0	0
Reused in this Contract (Inert) (in '000m^3)	0	0	0
Reused in other Projects (Inert) (in '000m^3)	1.738	0.410	2.779
Disposal as Public Fill (Inert) (in '000m^3)	3.105	3.175	24.564
Metals (in '000kg)	1.51	0	127.64
Paper / Cardboard Packing (in '000kg)	0.002	0.006	0.031
Plastics (in '000kg)	0	0	0.052
Chemical Wastes (in '000kg)	0	0	0
General Refuses (in '000m^3)	0.006	0.014	0.133

Table 5.3 Summary of Quantities of Inert C&D Materials and C&D Wastes for Contract No. DE/2018/03

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2021)
Hard Rock and Large Broken Concrete (Inert) (in '000kg)	0	0	0
Reused in this Contract (Inert) (in '000kg)	0	0	0
Reused in other Projects (Inert) (in '000kg)	0	0	0

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2021)
Disposal as Public Fill (Inert) (in '000kg)	98.65	93.19	1249.16
Metals (in '000kg)	16.4	0	16.4
Paper / Cardboard Packing (in '000kg)	0.11	0	0.351
Plastics (in '000kg)	0.005	0	0.012
Chemical Wastes (in '000kg)	0	0	0
General Refuses (in '000kg)	0	6.1	12.23

Table 5.4 Summary of Quantities of Inert C&D Materials and C&D Wastes for Contract No. DE/2018/04

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2021)
Hard Rock and Large Broken Concrete (Inert) (in '000kg)	0	0	0
Reused in this Contract (Inert) (in '000kg)	0	0	100
Reused in other Projects (Inert) (in '000m^3)	0	0	0
Disposal as Public Fill (Inert) (in '000m^3)	0	0	322.36
Metals (in '000kg)	0	0	0
Paper / Cardboard Packing (in '000kg)	0	0	0
Plastics (in '000kg)	0	0	0

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2021)
Chemical Wastes (in '000kg)	0	0	0
General Refuses (in '000kg)	3.06	0	21.62

6 Compliance Audit

6.1.1 The Event Action Plan for construction noise, air quality and ecological monitoring are presented in ***Appendix 6.1.***

6.1.2 The summary of exceedance is presented in ***Appendix 6.2.***

6.2 Noise Monitoring

6.2.1 No action or limit level exceedance was recorded in this reporting period.

6.3 Air Quality Monitoring

6.3.1 No action or limit level exceedance was recorded in this reporting period.

6.4 Ecological Monitoring

6.4.1 No Action Level and Limit Level was triggered for ecological monitoring in the reporting month.

6.5 Review of the Reasons for and the Implications of Non-compliance

6.5.1 No environmental non-compliance was recorded in the reporting month.

6.6 Summary of action taken in the event of and follow-up on non-compliance

6.6.1 There was no particular action taken since no non-compliance was recorded in the reporting period.

7 Environmental Site Audit

7.0.1. Within this reporting month, weekly environmental site audits were conducted on 6, 7, 14, 15, 21 and 28 December 2021. Biweekly landscape site audits were conducted on 14 (DE/2018/03 & DE/2018/04), 15 (DC/2018/06 & DC/2018/07) and 28 December 2021.. IEC attended the joint site inspection on 28 December 2021.

7.0.2. No non-compliance was found during the environmental site inspection while reminders on environmental measures were recommended. Results and findings of these inspections in this reporting month are listed below in ***Table 7.1 to 7.4***.

Table 7.1 Summary of Environmental Inspections of Contract No. DC/2018/06

Item	Date	Reminder(s)/ Observation(s)	Action taken by Contractor	Outcome
20211206_1	6 Dec 2021	The Contractor (DC/2018/06) was requested to provide and extend the solid dull green barrier fences with 2m next to Ng Tung River under EP condition 2.7.	In progress	Keep in review next month

Table 7.2 Summary of Environmental Inspections of Contract No. DC/2018/07

Item	Date	Reminder(s)/ Observation(s)	Action taken by Contractor	Outcome
20211215_2	15 Dec 2021	The Contractor (DC/2018/07) was reminded to implement proper dust mitigation measures for the uncovered stockpile.	As observed on 21 Dec 2021, the stockpile issue was mitigated.	Rectified
20211215_3	15 Dec 2021	The Contractor (DC/2018/07) was requested to provide 2m solid dull green barrier fences next to Shek Sheung River.	As observed on 7 Jan 2022, the barrier fences issue was rectified.	Rectified
20211221_2	21 Dec 2021	The Contractor (DC/2018/07) was reminded to prevent muddy surface runoff entering the public drainage system by adopting measures like providing sandbags.	As observed on 28 Dec 2021, surface runoff issue was mitigated.	Rectified

Table 7.3 Summary of Environmental Inspections of Contract No. DE/2018/03

Item	Date	Reminder(s)/ Observation(s)	Action taken by Contractor	Outcome
20211214_2	14 Dec 2021	The Contractor (DE/2018/03) was requested to provide 2m solid dull green barrier fences at the project site next to Shek Sheung River.	As observed on 4 Jan 2022, the barrier fences issue was rectified.	Rectified
20211214_2	21 Dec 2021	The contractor was reminded to provide acoustic material for the operating breaking tip	As observed on 4 Jan 2022, acoustic canvas was provided.	Rectified

Table 7.4 Summary of Environmental Inspections of Contract No. DE/2018/04

Item	Date	Reminder(s)/ Observation(s)	Action taken by Contractor	Outcome
-	-	-	-	-

7.0.3. With reference to the EP condition 2.7, erection of 2m solid dull green site barrier fences around active work sites is needed to minimize ecological impacts. The updated details and conditions of site barrier is presented in ***Appendix 7.1***.

7.0.4. Dust and noise mitigation measures for construction activities is shown in ***Appendix 7.2***.

8. Complaints, Notification of Summons and Prosecution

8.0.1. No environmental complaint, notification of summons and successful prosecution regarding construction works was recorded in the reporting period.

8.0.2. The details environmental complaints for the Project are summarized by complaint log in ***Appendix 8.1.***

8.0.3. Cumulative statistics on complaints and successful prosecutions are summarized in ***Table 8.1*** and ***Table 8.2*** respectively.

Table 8.1 Cumulative Statistics on Complaints in the Reporting Month

Reporting Period	No. of Complaints
Commencement works (Feb 2018) to last reporting month	3
December 2021	0
Total	**3**

Table 8.2 Cumulative Statistics on Successful Prosecutions

Environmental Parameters	Cumulative no. Brought Forward	No. of Successful Prosecutions this month (Offence Date)	Cumulative No. Project-to-Date
Air	-	0	0
Noise	-	0	0
Water	-	0	0
Waste	-	0	0
Total	**-**	**0**	**0**

9. Conclusion

9.0.1. The EM&A programme was carried out in accordance with the EM&A Manual requirements, minor alterations to the programme proposed were made in response to changing circumstances.

9.0.2. Mitigation measures according to the environmental mitigation implementation schedule and the EIA were generally implemented by the Contractor. Hence, the EM&A programme was considered effective and shall be maintained.

9.0.3. The scheduled construction activities and the recommended mitigation measures for the coming 3 months are listed in ***Table 9.1***. The construction programmes of individual activities are provided in ***Appendix 9.1.***

Table 9.1 Construction Activities and Recommended Mitigation Measures in Coming Reporting 3 Months

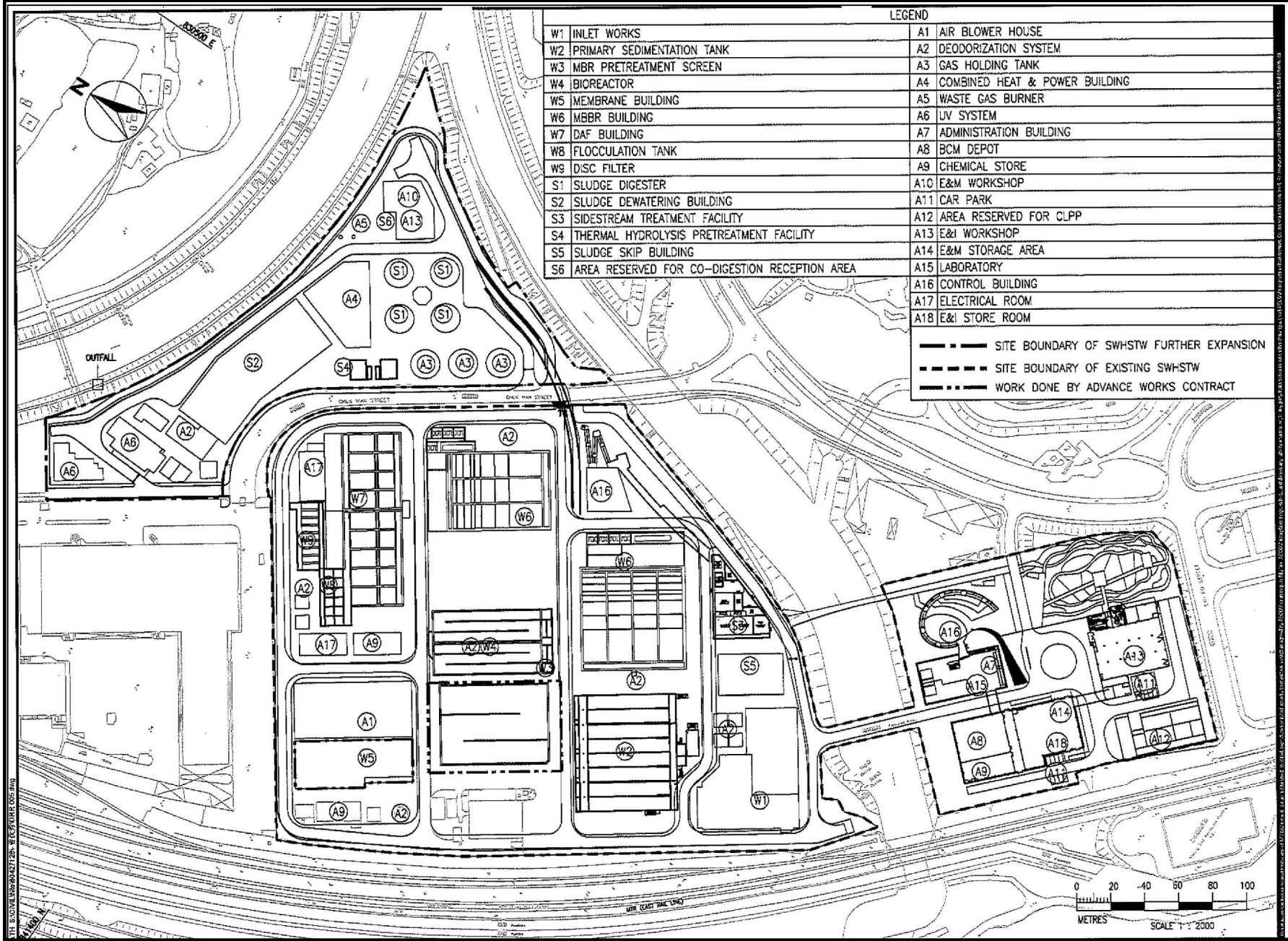
Contract No.	Key Construction Works	Recommended Mitigation Measures
DC/2018/06	• RC works • Excavation works • Sewerage and drainage works • ELS works • Backfilling • ABWF works	• Implement proper dust mitigation measures on dusty surface and stockpiles • Implement proper measures to prevent excavated material, silt or debris being deposited or washed into existing drainage systems and waterbodies • Implement proper noise mitigation measures to prevent potential noise nuisances to nearby sensitive receivers, especially screening noise during piling related activities • Provision of protection to ensure no runoff out of site area or direct discharge into public drainage system • Good site practices should be adopted to check for any accumulation of waste materials on site and dispose waste materials at designated areas. • Segregate and store different types of waste to enhance reuse or recycling of materials and their proper disposal
DC/2018/07	• ELS works	• Implement proper dust mitigation measures

Contract No.	Key Construction Works	Recommended Mitigation Measures
	• R.C. Structure works • Pre-bored H piles • Sheetpile Installation • Demolition works • Excavation • E&M installation and T&C works • ABWF works & BS works	on dusty surface and stockpiles • Implement proper measures to prevent excavated material, silt or debris being deposited or washed into existing drainage systems and waterbodies • Implement proper noise mitigation measures to prevent potential noise nuisances to nearby sensitive receivers, especially screening noise during piling related activities • Provision of protection to ensure no runoff out of site area or direct discharge into public drainage system • Good site practices should be adopted to check for any accumulation of waste materials on site and dispose waste materials at designated areas. • Segregate and store different types of waste to enhance reuse or recycling of materials and their proper disposal
DE/2018/03	• ELS (Sidestream Treatment Facilities) • Installation of EOT at UV • AFA and MFA System Installation • Penstock and Stoplog Installation • Effluent Pump Installation • UV System Installation • Electrical Installation for UV System No.1 Effluent TPS & Effluent Lift-up PS	• Implement proper dust mitigation measures on dusty surface and stockpiles • Implement proper noise mitigation measures to prevent potential noise nuisances to nearby sensitive receivers, especially screening noise during piling related activities • Good site practices should be adopted to check for any accumulation of waste materials on site and dispose waste materials at designated areas. • Segregate and store different types of waste to enhance reuse or recycling of materials and their proper disposal
DE/2018/04	• Testing and Commission	• Good site practices should be adopted to

Contract No.	Key Construction Works	Recommended Mitigation Measures
	of Temporary Filtrate Equalisation Tank. • Testing and Commission of Existing Primary Sedimentation Tank No. 4 & 6. • Testing and Commission of Temporary Primary Sludge Thickener and its accessories	check for any accumulation of waste materials on site and dispose waste materials at designated areas. • Segregate and store different types of waste to enhance reuse or recycling of materials and their proper disposal.

Figure 2.1

Project Layout



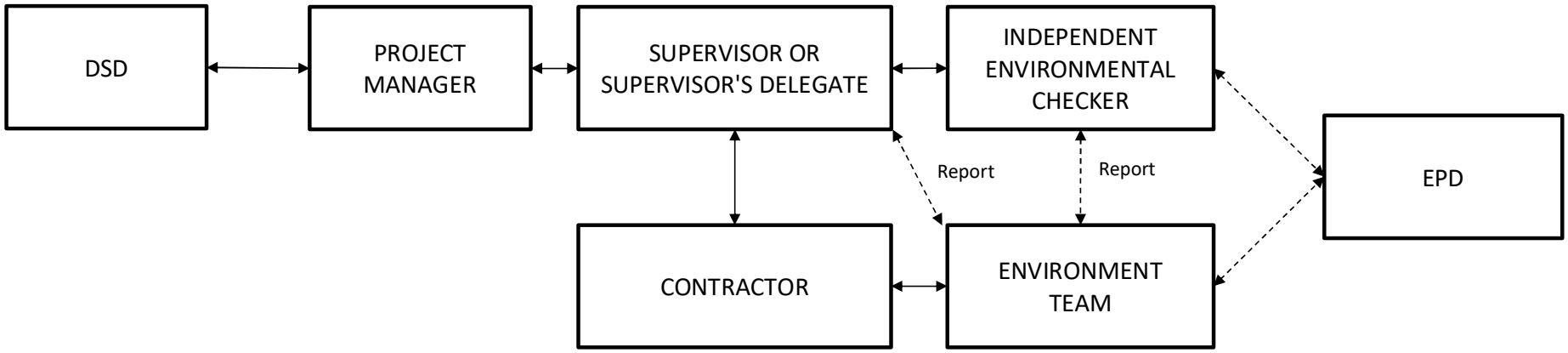
Shek Wu Hui E□luent Polishing Plant

General Site Layout O□SWHEPP

SCALE	As Shown	DATE	SEP 2019
CHECK	JM	DRAWN	SY
JOB No.		FIGURE NO. 1.1	RE□ -

Figure 2.2

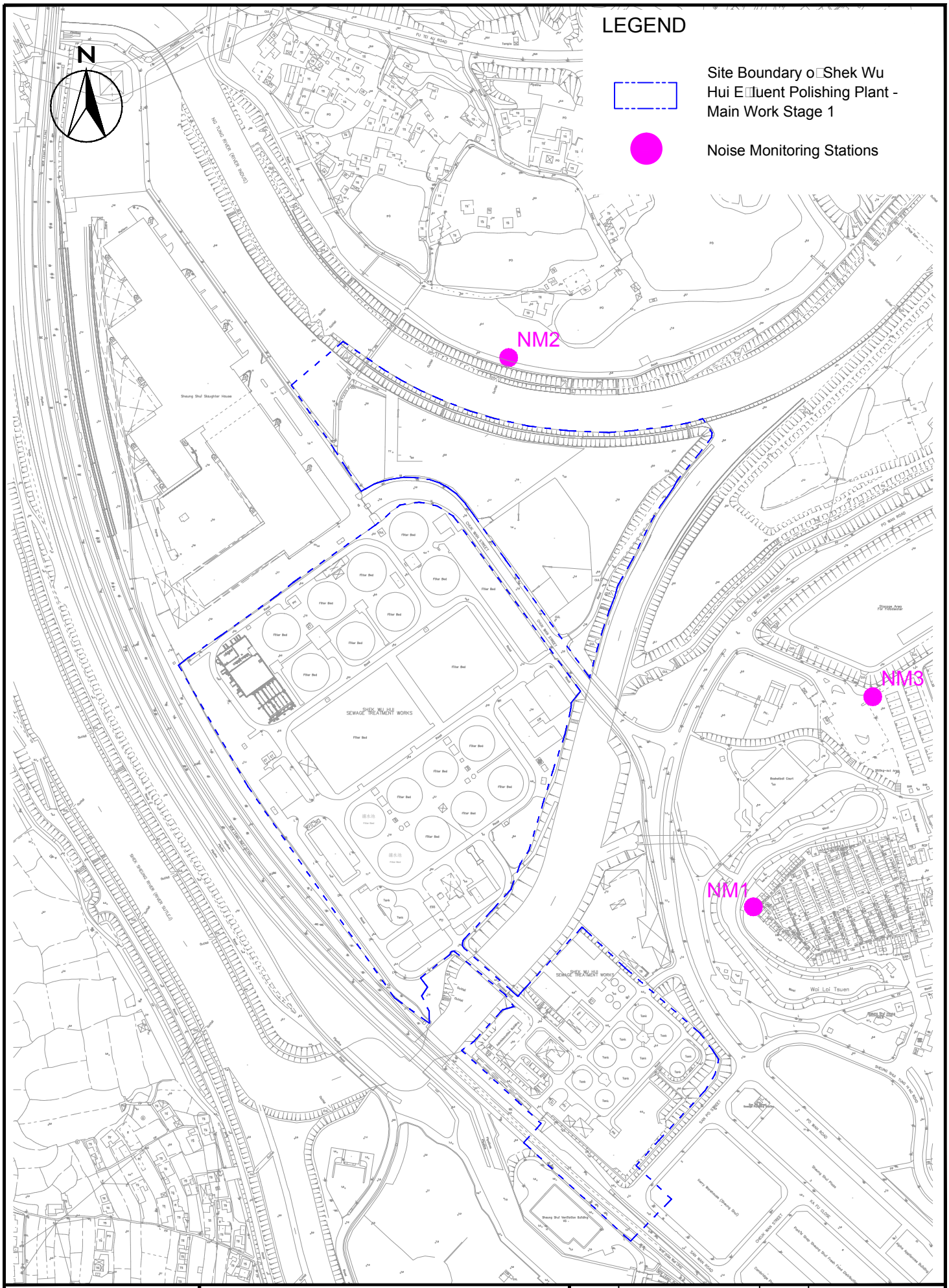
Project Organization Chart



	Shek Wu Hui Effluent Polishing Plant -	**SCALE**	N.T.S.	**DATE**	Sep 2019
		CHECK	JW	**DRAWN**	SY
	Project Organisation For Environmental Monitoring and Audit	**JOB NO.**		**FIGURE NO.**	1.2

Figure 4.1

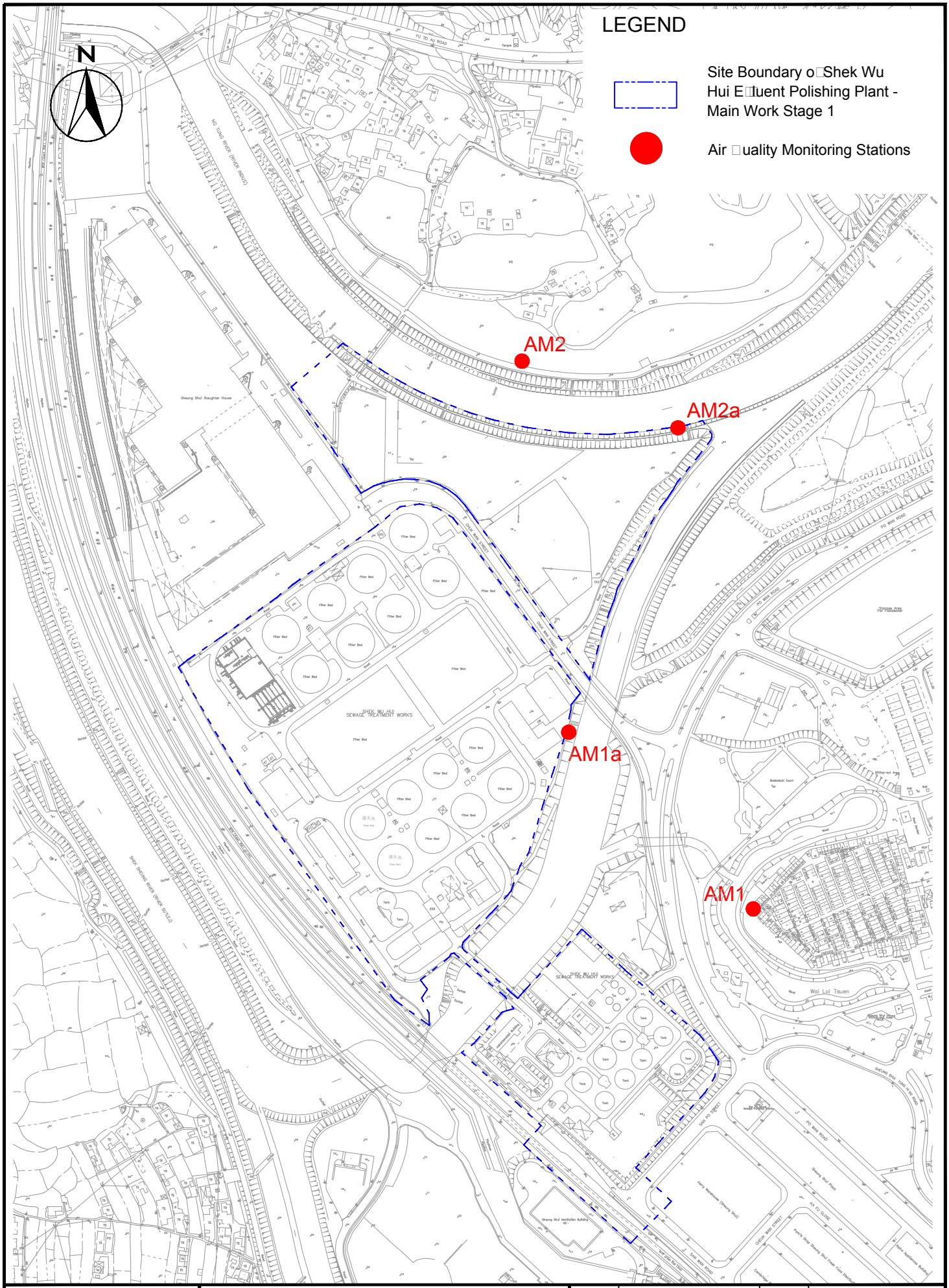
Locations of Noise Monitoring Stations



	Shek Wu Hui E luent Polishing Plant	SCALE	1:4000 A4	DATE SEP 2019
		CHECK	JM	DRAWN SY
	Location o Noise Monitoring Stations	JOB No.	MA19019	FIGURE NO. 3 RE -

Figure 4.2

Locations of Air Quality Monitoring Stations

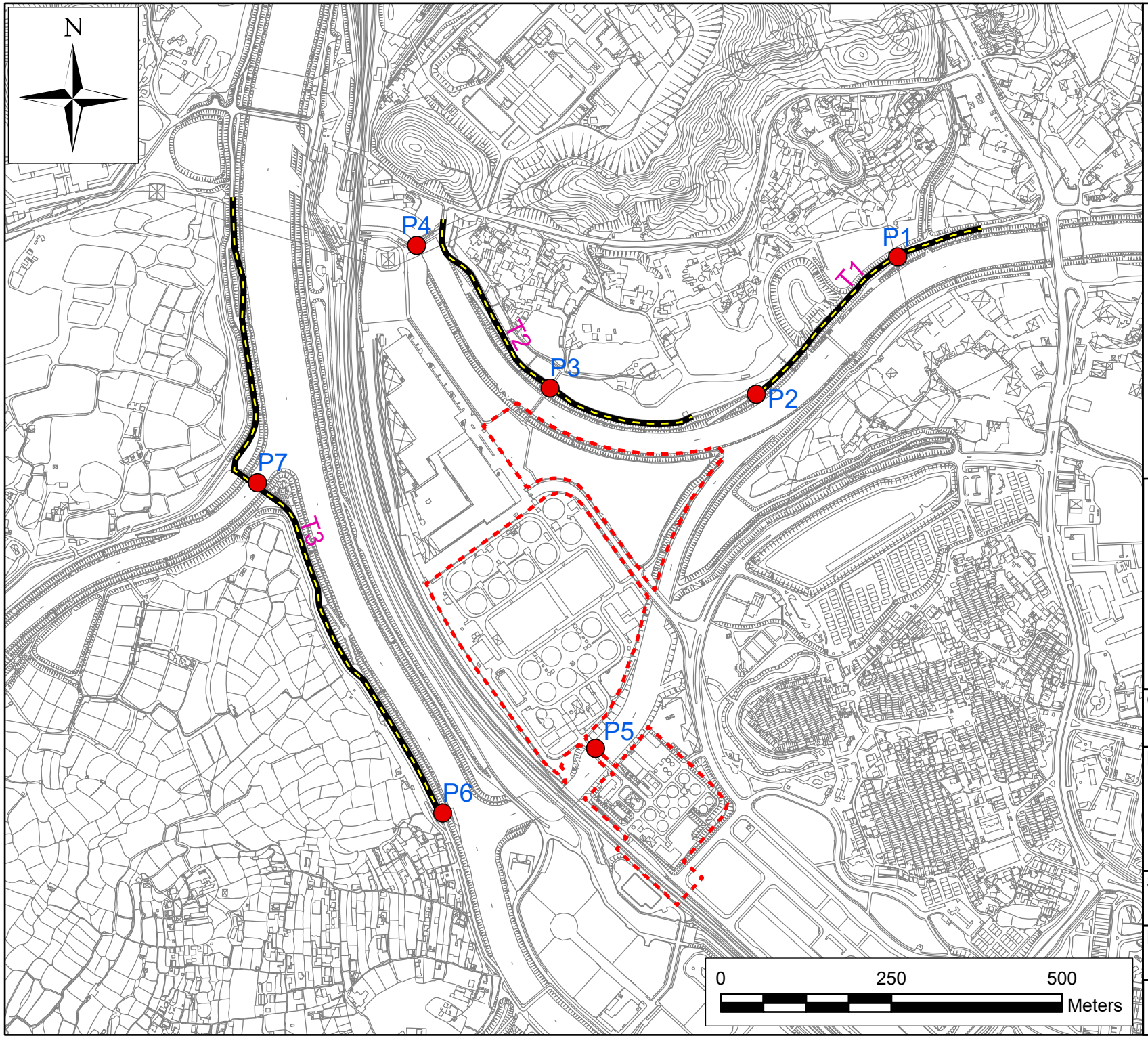


	Shek Wu Hui E□luent Polishing Plant - Location o□Air □uality Monitoring Stations	SCALE	1:400□ A4	DATE SEP 2019
		CHECK	JM	DRAWN SY
		JOB No.		FIGURE NO. 2 / RE□ -

F:/Project_drawings

Figure 4.3

Locations of Ecological Monitoring Stations



Legend

- Project Site Boundary
- Walk Transects
- Point Count Locations

PREPARED BY

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CONTRACT NO.

SPW 12/2021

PROJECT TITLE

Shek Wu Hui Effluent Polishing Plant - Main Works Survey Location for Ecological Monitoring

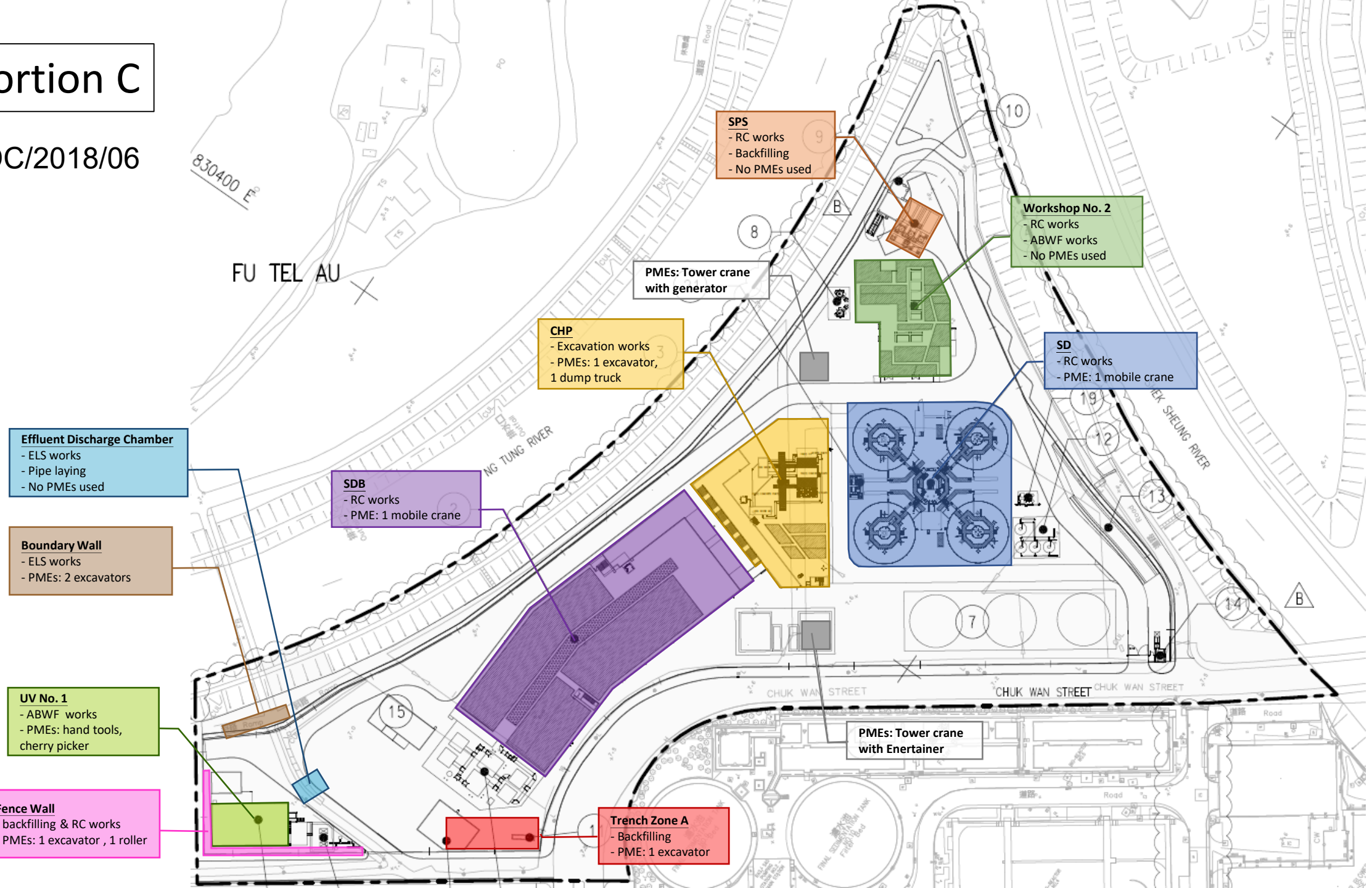
SCALE	DATE
1:7500@A4	***Sept 2021***
DRAWN BY ***AL***	CHECK BY ***MC***
FIGURE NO. ***1***	REVISION NO. ***-***

Appendix 2.1

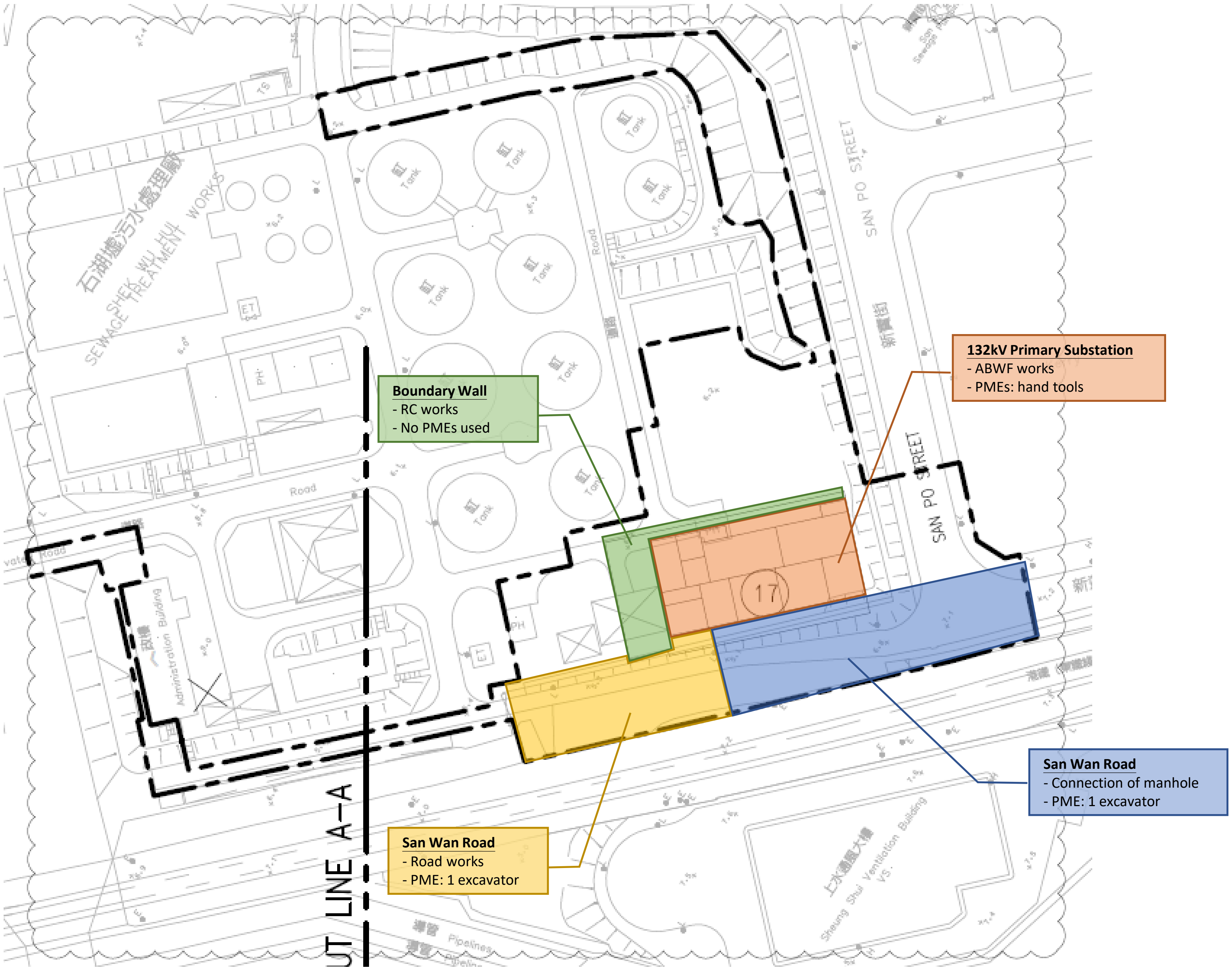
Layout plan of construction activities

Portion C

DC/2018/06



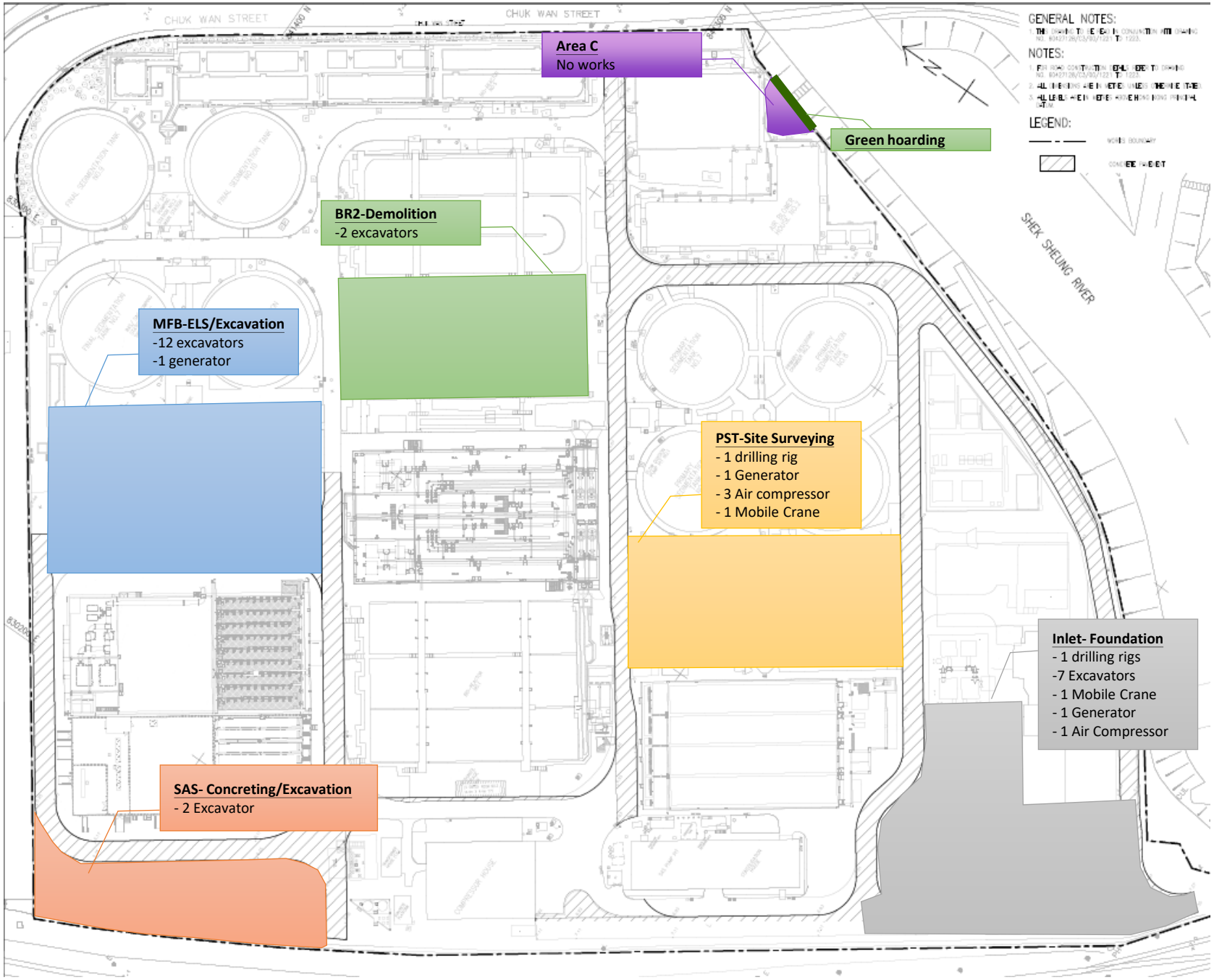
Portion A



Boundary Wall
- RC works
- No PMEs used
132kV Primary Substation
- ABWF works
- PMEs: hand tools
San Wan Road
- Connection of manhole
- PME: 1 excavator
San Wan Road
- Road works
- PME: 1 excavator
CUT LINE A-A
SAN PO STREET
新發街
石湖墟污水處理廠
SHEK WU HUI SEWAGE TREATMENT WORKS
Administration Building
Road
17

Portion B

DC/2018/07



DE/2018/03

841600 N

841400 N

830400 E

830200 E

FU TEL AU

SHEUNG SHUI HEUNG

SHEUNG SHUI SLAUGHTER HOUSE

NG TUNG RIVER

SHEK SHEUNG RIVER

PO WAN ROAD

CHUK WAN STREET

MTR (EAST RAIL LINE)

UV System No.1
Installation of EOT at UVP
AFA and MFA System Installation
Penstock and Stoplog Installation
Effluent Pump Installation
UV System Installation
Electrical Installation for UV System No.1 Effluent TPS & Effluent Lift-up PS
PME: Generator X1

Sidestream
ELS
PME: Excavator X3

NOTES:

1. DRAWINGS ARE NOT TO BE SCALED. ALL DIMENSIONS SHALL BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF CONSTRUCRION.
2. ALL LEVELS SHOWN ARE IN METERS AND REFER TO THE PRINCIPAL DATAM.
3. ALL CO-ORDINATES ARE IN ACCORDANCE WITH H.K. (1980) GEODETIC DATAM.
4. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
5. ALL DETAILS SHOWING THE EXISTING CONDITIONS OF THE SITE INCLUDING ALL GROUND, STRUCTURES, ROAD, SERVICES, ETC. ARE INDICATIVE ONLY.
6. THE LOCATION, ORIENTATIONS, ALIGNMENT, SIZES, LEVELS AND DETAILS OF THE SEWAGE AND DRAINAGE WORKS, INCLUDING THE PIPES CONNECTION, MANHOLES, EXISTING PIPES TO BE CONNECTED, EXISTING MANHOLES TO BE MODIFIED, THE CONSTRUCTION METHOD SHOWN ON THIS SET OF DRAWINGS ARE INDICATIVE AND FOR TENDER PURPOSE ONLY.
7. EXACT TIE-IN WITH EXISTING FEATURES SHALL BE AGREED WITH THE SUPERVISOR.

LEGEND:

	SITE BOUNDARY
1	UV SYSTEM NO. 1 & EFFLUENT PUMPING STATION NO. 1
2	SLUDGE DEWATERING BUILDING
3	COMBINED HEAT & POWER BUILDING
4	SLUDGE DIGESTER
5	WORKSHOP NO. 2
6	THERMAL HYDROLYSIS PRETREATMENT FACILITIES
7	BIOGAS HOLDING TANKS
8	WASTE GAS BURNER
9	SEWAGE PUMPING STATION
10	FERRIC CHLORIDE DOSING FACILITIES
11	WATER METER CABINET
12	H2S REMOVAL SYSTEM
13	UNDERPASS (PART)
14	GUARD HOUSE
15	TRANSFORMER AND SWITCHROOM
16	FIRE HYDRANT AND BOOSTER PUMP ROOM
18	DEODORIZATION SYSTEM NO. 11
19	DEODORIZATION SYSTEM NO. 12
20	PLANT SERVICES WATER SYSTEM
21	THP COOLERS PUMPING STATION
22	SIDESTREAM TREATMENT FACILITIES
23	SURPLUS ACTIVATED SLUDGE PUMPING STATION
24	EXISTING CONSOLIDATION HOUSE

AECOM

PROJECT 項目

SHEK WU HUI EFFLUENT POLISHING PLANT

CONTRACT TITLE
SHEK WU HUI EFFLUENT POLISHING PLANT - MAIN WORKS STAGE 1 - SIDESTREAM TREATMENT FACILITIES AND E&M WORKS FOR SLUDGE TREATMENT FACILITIES

CLIENT 業主

渠務署 Drainage Services Department

CONSULTANT 工程顧問公司

AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS 分判工程顧問公司

ISSUE/REVISION 修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 核核
-	MAR. 19	TENDER DRAWING	TLST

STATUS 階段

SCALE 比例
A1 1 : 1000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN 索引圖

PROJECT NO. 項目編號
60427128

CONTRACT NO. 合約編號
DE/2018/03

SHEET TITLE 圖紙名稱
SHEK WU HUI EFFLUENT POLISHING PLANT GENERAL LAYOUT PLAN

SHEET NUMBER 圖紙編號
60427128/C2/00/1001

Project Management Initials: Designer: KYTM Checked: TLST Approved: ELIM ISO A1 594mm x 841mm

Plot File by: GuoX 26/03/2019
PATH: P:\PROJECTS\60427128\Drawing\Contract\C2\1000\C2_00_1001.dwg

DE/2018/04

Portion B-3A
Existing primary sedimentation tank No. 4 and 6
Testing and Commission of Existing Primary Sedimentation Tank No. 4 & 6.

Portion B-3B
TEMPORARY FILTRATE LIFTING WELL AND EQUALISATION TANK
Testing and Commission of Temporary Filtrate Equalisation Tank.

Temporary Primary Sludge Thickener
Testing and Commission of Temporary Primary Sludge Thickener and its accessories.

SHEK SHEUNG RIVER

1	INLET WORKS NO.1
2	PRIMARY SEDIMENTATION TANKS NO.1 – 4
3	BIOREACTOR NO. 2A & 2B
4	MEMBRANE FACILITIES BUILDING NO.2
5	TEMPORARY CHEMICAL DOSING SYSTEM
6	DEODORISATION SYSTEM NO.1
7	DEODORISATION SYSTEM NO.2A
8	DEODORISATION SYSTEM NO.3A
9	DEODORISATION SYSTEM NO.3B
10	CHEMICAL SYSTEM NO. 1
11	EMERGENCY GENERATOR HOUSE
12	FS AND SPRINKLER PUMPING ROOM
13	CHEMICAL SYSTEM NO. 2
14	TEMPORARY FILTRATE LIFTING WELL AND EQUALISATION TANK
15	EXISTING PRIMARY SEDIMENTATION TANK NO.4
16	EXISTING PRIMARY SEDIMENTATION TANK NO.6
17	EXISTING SLUDGE PRESS HOUSE
18	EXISTING MBR FACILITIES BUILDING NO.1
19	STREET FIRE HYDRANT PUMP ROOM (B)
20	FLOWMETER CHAMBER NO.1
21	FLOWMETER CHAMBER NO.2
22	FLOWMETER CHAMBER NO.3
23	FLOWMETER CHAMBER NO.4
24	GATE VALVE CHAMBER NO.1
25	GATE VALVE CHAMBER NO.2
26	GATE VALVE CHAMBER NO.3
27	PLUG VALVE CHAMBER NO.1
28	PLUG VALVE CHAMBER NO.2
29	EXISTING MAIN POWER HOUSE
30	RELOCATED DEODORISATION SYSTEM

NOTES:

1. DRAWINGS ARE NOT TO BE SCALED. ALL DIMENSIONS SHALL BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF CONSTRUCRION.
2. ALL LEVELS SHOWN ARE IN METERS AND REFER TO THE PRINCIPAL DATAM.
3. ALL CO-ORDINATES ARE IN ACCORDANCE WITH H.K. (1980) GEODETIC DATAM.
4. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
5. ALL DETAILS SHOWING THE EXISTING CONDITIONS OF THE SITE INCLUDING ALL GROUND, STRUCTURES, ROAD, SERVICES, ETC. ARE INDICATIVE ONLY.
6. THE LOCATION, ORIENTATIONS, ALIGNMENT, SIZES, LEVELS AND DETAILS OF THE SEWAGE AND DRAINAGE WORKS, INCLUDING THE PIPES CONNECTION, MANHOLES, EXISTING PIPES TO BE CONNECTED, EXISTING MANHOLES TO BE MODIFIED, THE CONSTRUCTION METHOD SHOWN ON THIS SET OF DRAWINGS ARE INDICATIVE AND FOR TENDER PURPOSE ONLY.
7. EXACT TIE-IN WITH EXISTING FEATURES SHALL BE AGREED WITH THE SUPERVISOR.

LEGEND:

SITE BOUNDARY

Use of Key PME: 0

use of key pme: 0

Project Management Initials: Designer: KYTM Checked: TLST Approved: ELIM ISO A1 594mm x 841mm

Plot File by: GuoX 15/08/2019
PATH: P:\PROJECTS\60427128\Drawing\Contract\C4\1000\C4_00_1001.dwg

AECOM

PROJECT 項目

SHEK WU HUI EFFLUENT POLISHING PLANT

CONTRACT TITLE
SHEK WU HUI EFFLUENT POLISHING PLANT - MAIN WORKS STAGE 1 - E&M WORKS FOR SEWAGE TREATMENT FACILITIES

CLIENT 業主

渠務署 Drainage Services Department

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I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 核核
B	AUG. 19	TENDER ADDENDUM NO. 3	TLST
A	JUL. 19	TENDER ADDENDUM NO. 2	TLST
-	APR. 19	TENDER DRAWING	TLST

STATUS 用段

SCALE 比例
A1 1 : 1000

DIMENSION UNIT 尺寸單位
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KEY PLAN 索引圖

PROJECT NO. 項目編號
60427128

CONTRACT NO. 合約編號
DE/2018/04

SHEET TITLE 圖紙名稱
GENERAL LAYOUT PLAN

SHEET NUMBER 圖紙編號
60427128/C4/00/1001B

Appendix 3.1

Environmental Mitigation Implementation Schedule

Appendix 3.1 Environmental Mitigation Implementation Schedule

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
Air Quality Monitoring							
S2.4.1.3	Dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation and good site practices:						
	• Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading;	To minimize the dust impact	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Air Pollution Control Ordinance (APCO) and Air Pollution Control (Construction Dust)	^
	• Any dusty material remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads;						^
	• A stockpile of dusty material should not be extended beyond the pedestrian barriers, fencing or traffic cones;						^
	• The load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle;						^
	• Where practicable, vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point. The area where vehicle washing takes place and the road section between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores;						

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
	• When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period.						^
	• The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials;						^
	• Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical continuously;						^
	• Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet;						^
	• Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the ground floor level of the building, or a canopy should be provided from the first floor level up to the highest level of the scaffolding;						^
	• Any skip hoist for material transport should be totally enclosed by impervious sheeting;						^
	• Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides;						^
	• Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed;						^

	• Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; and						^
	• Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shortcrete or other suitable surface stabiliser within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
Noise Impact							
S3.4.1.1	Use of movable barrier, enclosure, acoustic mat and quiet plant. Use of wooden frames barrier with a small-cantilevered upper portion of superficial density not less than 14kg/m² on a skid footing with 25mm thick internal sound absorptive lining.	To minimize construction noise impact arising from the Project at the affected noise sensitive receivers (NSRs)	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM, Noise Control Ordinance (NCO)	^
S3.4.1.2	Good Site Practice:						
	• Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program.	To minimize construction noise impact arising from the Project at the affected NSRs	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM, NCO	^
	• Silencers or mufflers on construction equipment should be utilized and should be properly maintained during the construction program.						*
	• Mobile plant, if any, should be sited as far away from NSRs as possible.						^
	• Machines and plant (such as trucks) that may be in intermittent use should be shut down between works periods or should be throttled down to a minimum.						^
	• Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs.						^
	• Material stockpiles and other structures should be effectively utilized, wherever practicable, in screening noise from on-site construction activities.						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
Ecological Impact							
S4.2.1.1	Solid dull green noise/visual barriers of at least 2m high shall be erected and maintained between active works area and all areas of ecological importance.	Minimize noise and human disturbances during construction phase.	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	^
S4.2.1.2	Avoid unnecessary lighting.	Minimize mortality impacts on birds.	Design / Contractor/ Plant Operator	Work Sites	Construction and operation phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	^
S4.2.1.3	Good construction site practice to minimise dust generation should be followed on all construction sites. Measures to avoid, minimise and mitigate impacts on air quality are detailed in this schedule.	Minimize dust generation from construction sites.	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	^
S4.2.1.4	The following measures to avoid, minimise and mitigate impact on water quality during construction phase shall be implemented						
	• Temporary sewerage and drainage to be designed and installed to collect wastewater and prevent it from entering water bodies;	Avoid, minimise and mitigate impact on water quality	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	^
	• Proper locations well away from nearby water bodies should be used for temporary storage of materials (i.e. equipment, filling materials, chemicals and fuel) and temporary stockpiles of construction debris and spoil, and these should be identified before commencement of works;						^
	• To prevent muddy water entering nearby water bodies, work sites close to nearby water bodies should be isolated, using such items as sandbags or silt curtains with lead edge at bottom and properly supported props. Other protective measures should also be taken to ensure that no pollution or siltation occurs to the water gathering grounds of the work sites;						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
	• Construction debris and spoil should be covered and/or properly disposed of as soon as possible to avoid these being washed into nearby water bodies;						^
	• Proper locations for discharge outlets of temporary wastewater treatment facilities well away from sensitive receivers should be identified;						^
	• Adequate lateral support should be erected where necessary in order to prevent soil/mud from slipping into water bodies;						^
	• Site boundaries should be clearly marked and any works beyond the boundary strictly prohibited;						^
	• Regular water monitoring and site audit should be carried out at adequate points along any watercourses where construction works are underway upstream within their catchments and also on the Ng Tung, Sheung Yue and Shek Sheung Rivers. If the monitoring and audit results show that pollution occurs, adequate measures including temporarily cessation of works should be considered;						^
	• Excavation profiles should be properly designed and executed with attention to the relevant requirements for environment, health and safety;						^
	• Where soil to be excavated is situated beneath the groundwater table, it may be necessary to lower the groundwater table by installing well points or similar means; Stockpiling sites should be lined with impermeable sheeting and bunded. Stockpiles should be properly covered by impermeable sheeting to reduce dust emission during dry season or contaminated run-off during rainy season. Watering should be avoided on stockpiles of						^
	• contaminated soil to minimize contaminated runoff and construction materials should be properly covered and located away from nearby water bodies; and						^
	• Supply of suitable clean backfill material after excavation, if required.						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
	• Vehicles containing any excavated materials should be suitably covered to limit potential dust emissions or contaminated run-off, and truck bodies and tailgates should be sealed to prevent discharge during transport or during wet season;						^
	• Speed control for the trucks carrying contaminated materials should be enforced;						^
	• Vehicle wheel washing facilities at construction sites' exit points should be established and used, where necessary; and						^
	• Other measures as detailed in this schedule.						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
Water Quality Impact							
S5.2.2.1	Construction Site Runoff Practices and measures provided in the Practice Note for Professional Persons on Construction Site Drainage, (PROPECC PN1/94) should be followed where applicable.	Control construction runoff	Contractors	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM, WPCO, EIAO	^
S5.2.2.2 – S5.2.2.3	Sewage from Workforce						
	• Portable chemical toilets and sewage holding tanks should be provided for handling the construction sewage generated by the workforce. A licensed Contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance;	Handling of site sewage	Contractors	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM, WPCO, EIAO	^
	• Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction phase of the Project. Regular environmental audit on construction site should be conducted in order to provide an effective control of any malpractices and achieve continual improvement of environmental performance on site. It is anticipated that sewage generation during the construction phase of the Project would not cause water quality impact after undertaking all required measures						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
Waste Management							
S6.2.2.1	Good Site Practices and Waste Reduction Measures						
	• Nomination of an approved person, such as a site manager, to be responsible for the implementation of good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site;	Minimize waste generation during construction	Contractors	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Waste Disposal Ordinance (WDO)	*
	• Training of site personnel in site cleanliness, appropriate waste management procedures and concepts of waste reduction, reuse and recycling;						^
	• Provision of sufficient waste disposal points and regular collection for disposal;						^
	• Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers;						^
	• Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors;						^
	• An Environmental Management Plan (EMP) should be prepared by the contractor and submitted to the Supervisor for approval.						^
S6.2.3.1	Waste Reduction Measures						
	• Segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling of materials and their proper disposal;	Reduce waste generation	Contractors	Work Sites	Prior to the commencement of construction of Main Works Stage 1, Stage 2 and Stage 3	WDO	^
	• Proper storage and site practices to minimize the potential for damage and contamination of construction materials;						^
	• Plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste;						^
	• Sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions (i.e. soil, broken concrete, metal etc.); and						^
	• Provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling.						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
S6.2.4.1	Storage, Collection and Transportation of Waste Should any temporary storage or stockpiling of waste is required, recommendations to minimize the impacts include:	Minimize waste impacts arising from waste storage	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	WDO	^
	• Waste, such as soil, should be handled and stored well to ensure secure containment, thus minimizing the potential of pollution;						^
	• Stockpiling area should be provided with covers and water spraying system to prevent materials from windblown or being washed away; and						^
	• Different locations should be designated to stockpile each material to enhance reuse.						^
S6.2.4.2	Storage, Collection and Transportation of Waste (con't)						
	• Remove waste in timely manner;	Minimize waste impacts arising from waste storage	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	WDO	^
	• Employ the trucks with cover or enclosed containers for waste transportation;						^
	• Obtain relevant waste disposal permits from the appropriate authorities; and						^
	• Disposal of waste should be done at licensed waste disposal facilities						^
S6.2.5.2	C&D Materials from Site Formation						
	• Maintain temporary stockpiles and reuse excavated fill material for backfilling;	Minimize waste impacts arising from waste storage	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Land (Miscellaneous Provisions) Ordinance, WDO, ETWB TCW No. 19/2005	^
	• Carry out on-site sorting;						^
	• Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate;						^
	• Adopt "selective demolition" technique to demolish the existing structure and facilities with a view to recovering broken concrete effectively for recycling purpose, where possible; and						^
	• Implement a trip-ticket system for each works contract to ensure that the disposal of C&D materials are properly documented and verified.						^
S6.2.5.3	C&D Material from Buildings Demolition and New Building Construction						

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
	• The Contractor should recycle as much as possible of the C&DM on-site. Public fill and C&DM waste should be segregated and stored in different containers or skips to enhance reuse or recycling of materials and their proper disposal. For example, concrete and masonry can be crushed and used as fill, and steel reinforcing bar can be used by scrap steel mills. Different areas of the work sites should be designated for such segregation and storage.	Minimize waste impacts arising from waste storage	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Land (Miscellaneous Provisions) Ordinance, WDO, ETWB TCW No. 19/2005	^
	• The use of wooden hoardings shall not be allowed. An alternative material, such as metal, aluminium or alloy etc, could be used.						^
	• Government has developed a charging policy for the disposal of waste to landfill at present. It will provide additional incentive to reduce the volume of generated waste and ensure proper segregation to allow reuse of the inert material on site when implemented.						^
	• In order to minimize the impacts of the demolition works, the generated wastes must be cleared as quickly as possible after demolition. Therefore, the demolition and clearance works should be undertaken simultaneously. To facilitate proper segregation of inert and non-inert C&D material arising from demolition works, selective demolition method should be adopted.						^
S6.2.5.4	Chemical Waste						
	• If chemical wastes are produced at the construction site, the Contractors should register with EPD as chemical waste producers.	Control the chemical waste and ensure proper storage, handling and disposal	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Waste Disposal (Chemical Waste General) Regulation, Code of Practice on the Packaging, Labelling and Storage of Chemical Waste	^
	• Chemical wastes should be stored in appropriate containers and collected by a licensed chemical waste contractor. Chemical wastes (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible, while the chemical waste that cannot be recycled should be disposed of at either the Chemical Waste Treatment Centre, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.						*
S6.2.5.5	General Refuse						

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
	• General refuse should be stored in enclosed bins separately from construction and chemical wastes.	Minimize production of the general refuse and avoid odour, pest and litter impacts	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Waste Disposal (Chemical Waste General) Regulation	^
	• Recycling bins should also be placed to encourage recycling.						^
	• Preferably enclosed and covered areas should be provided for general refuse collection and routine cleaning for these areas should also be implemented to keep areas clean.						^
	• A reputable waste collector should be employed to remove general refuse on a daily basis.						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
Landscape and Visual							
S7.3.1.1	Good Site Practices Measures						
	• For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to.	Minimize the impact to the landscape and visual	Contractor	Work Sites	Prior to construction and construction phase		N/A
	• With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.						N/A
S7.3.2.1	MM4 - Tree Protection & Preservation • Existing trees to be retained within the Project Site should be carefully protected during construction. In particular Old and Valuable Trees (OVTs) will be preserved according to ETWB TC (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.	Protect and Preserve Trees	Designer / Contractor	Work Sites	Prior to construction and construction phase	ETWB TCW No. 29/2004 and DEVB TC(W) No.7/2015	^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
S7.3.2.1	MM5 - Tree Transplantation • Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC No. 2/2004 and DEVB TC(W) No. 7/2015 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.	Transplant Trees where suitable for transplantation	Designer / Contractor	Work Sites where possible. Otherwise consider offsite locations	Prior to construction, construction phase and operation phase	DEVB TC(W) No. 7/2015 and ETWB TCW No.2/2004 HyD HQ/GN/13 Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit	N/A
S7.3.2.1	MM6 - Slope Landscaping						
	• Site formation should be reduced as far as possible. Hydroseeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape recourses and charter. Woodland tree seedings and/or shrubs should be planted where slope gradient and site conditions allow.	To avoid substantial slope cutting and fill slopes. To prevent erosion and subsequent loss of landscape resources and character. To ensure manmade slopes are as visually amenable as possible.	Designer / Contractor	Work Sites	Prior to construction, construction phase and operation phase	GEO Publication (1999) - Use of Vegetation as Surface Protection on Slope; GEO Publication No. 1/2011- Technical Guidelines on Landscape Treatment for Slopes	N/A
	• In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping						N/A
S7.3.2.1	MM7 - Compensatory Planting						

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
	• Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under DEVB TC(W) No. 7/2015.	Compensate for trees and shrubs lost due to the Project	Designer / Contractor	Work Sites where possible. Otherwise consider offsite locations	Prior to construction, construction phase and operation phase	DEVB TC(W) No. 7/2015 and ETWB TCW No. 2/2004	N/A
	• Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots.						N/A
	• Compensatory planting for shrubs should be considered in suitable locations. Native species such as *Melastoma malabathricum, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma dodecandrum, Atalantia buxifolia, Rhodomyrtus tomentosa, Rhaphiolepis indica, and Rhododendron simsii are suggested.*						N/A
S7.3.2.1	MM9 - Vertical Greening • Planting of climbers to grow up vertical surfaces were appropriate.	Soften hard surfaces and facilities	Designer / Contractor	On appropriate structures	Prior to construction, construction phase and operation phase	ETWB TCW No.11/2004 – Cyber Manual for Greening	N/A
S7.3.2.1	MM10 - Green Roof • Roof greening where appropriate should be established on proposed buildings as per the guidelines stated. These guidelines provide further details including information regarding structural loading, design, maintenance, etc. considerations as well as providing information on what types of plants might be suitable.	Reduce exposure to untreated concrete surfaces and particularly mitigate visual impact to visually sensitive receivers (VSRs) at high levels. Provide greening	Designer / Contractor	On appropriate buildings	Prior to construction, construction phase and operation phase	CIBSE HK Branch, Technical Guidelines for Green Roof Systems in Hong Kong (2011); ArchSD/Urbis Study on Green Roof Application in HK (2007)	N/A

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
S7.3.2.1	MM11 - Screen Planting • Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Designer / Contractor	Along roads, around suitable built structures, or around VSRs to contain their view out to the structures.	Prior to construction, construction phase and operation phase	ETWB TCW No. 10/2013 and 3/2006	N/A
S7.3.2.1	MM16 - Screen Hoarding • Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, non-reflective, recessive colours be used. Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence. Details can refer to the ecological impact assessment. [Chapter 13 of the EIA Report of NENT NDAs (Register No. AEIAR-175- 2013)]	To screen undesirable views of the works site.	Designer	Work Sites	Construction phase		N/A
S7.3.2.1	MM17 - Light Control • Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs.	Designer / Contractor	Work Sites and/or the Plant	Construction phase and operation phase		N/A

Remarks:
^ Implemented
* To be followed-up by Contractor
# Not Implemented
N/A Not Applicable

Appendix 4.1

Action and Limit Level

Action and Limit Levels

Air Quality Monitoring

Monitoring Station	1-hour TSP Level in μg/m³		24-hour TSP Level in μg/m³	
	Action Level	Limit Level	Action Level	Limit Level
AM1	320	500	189	260
AM2	322	500	187	260

Noise Monitoring

Monitoring Stations	Leq(30min),dB(A)	
	Action Level (dB(A))	Limit Level (dB(A))
NM1	When one documented complaint is received	75*
NM2		
NM3		

*Notes: (1) If works are to be carried out during restricted hours, the conditions stipulated in the Construction Noise Permit (CNP) used by the Noise Control Authority should be followed.

(2) The limit level shall be 70 dB(A) and 65 dB(A) for educational institute during normal teaching periods and school examination periods, respectively.

Ecological Monitoring of Waterbirds using Ng Tung, Sheung Yue and Shek Sheung Rivers during Construction Phase

Action Level	Limit Level
Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that Action Level response is triggered.	Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Limit Level response is triggered.
Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Action Level Response is triggered.	Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Limit Level response is triggered.

*Note: Whether numbers are significant depend on species and season after collection and evaluation of baseline data.

Appendix 4.2

Copies of Calibration Certificates

TISCH Environmental

RECALIBRATION DUE DATE:
August 3, 2022

Certificate of Calibration

Calibration Certification Information				
Cal. Date:	August 3, 2021	**Rootsmeter S/N:** 438320	**Ta:** 295	°K
Operator:	Jim Tisch		**Pa:** 750.3	mm Hg
Calibration Model #:	TE-5025A	**Calibrator S/N:** **3166**		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.3610	3.2	2.00
2	3	4	1	0.9540	6.4	4.00
3	5	6	1	0.8460	7.9	5.00
4	7	8	1	0.8070	8.7	5.50
5	9	10	1	0.6630	12.7	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H(Ta/Pa)}$ (y-axis)
0.9930	0.7296	1.4123	0.9957	0.7316	0.8868
0.9888	1.0365	1.9973	0.9915	1.0393	1.2541
0.9868	1.1664	2.2330	0.9895	1.1696	1.4021
0.9857	1.2215	2.3420	0.9884	1.2248	1.4705
0.9804	1.4788	2.8246	0.9831	1.4828	1.7735
QSTD	**m=**	**1.88375**	**QA**	**m=**	**1.17957**
	b=	**0.03970**		**b=**	**0.02493**
	r=	**0.99998**		**r=**	**0.99998**

Calculations

Vstd=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	**Va=**	ΔVol((Pa-ΔP)/Pa)
Qstd=	Vstd/ΔTime	**Qa=**	Va/ΔTime

For subsequent flow rate calculations:

Qstd= $1/m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right)$

Qa= $1/m\left(\left(\sqrt{\Delta H(Ta/Pa)}\right)-b\right)$

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg

Key
ΔH: calibrator manometer reading (in H2O)
ΔP: rootsmeter manometer reading (mm Hg)
Ta: actual absolute temperature (°K)
Pa: actual barometric pressure (mm Hg)
b: intercept
m: slope

RECALIBRATION

US EPA recommends annual recalibration per 1998 40 Code of Federal Regulations Part 50 to 51, Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere, 9.2.17, page 30

Tisch Environmental, Inc.
145 South Miami Avenue
Village of Cleves, OH 45002

www.tisch-env.com
TOLL FREE: (877)263-7610
FAX: (513)467-9009

Lam Environmental Services Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location	:	AM1a	**Calbration Date**	:	30-Oct-21
Equipment no.	:	HVS001	**Calbration Due Date**	:	30-Dec-21

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition					
Temperature, T_a	302	Kelvin	**Pressure, P_a**	1013	mmHg

Orifice Transfer Standard Information					
Equipment No.	**3166**	**Slope, m_c**	1.88375	**Intercept, bc**	0.03970
Last Calibration Date	3-Aug-21	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$			
Next Calibration Date	3-Aug-22	$= m_c \times Q_{std} + b_c$			

Calibration of TSP						
Calibration Point	**Manometer Reading H (inches of water)**			**Q_{std}** (m^3 / min.) **X-axis**	**Continuous Flow Recorder, W** (CFM)	**IC** $(W(P_a/1013.3 \times 298/T_a)^{1/2}/35.31)$ **Y-axis**
	(up)	(down)	(difference)			
1	1.3	1.3	2.6	0.8291	22	21.8506
2	2.3	2.3	4.6	1.1098	33	32.7759
3	3.6	3.6	7.2	1.3937	43	42.7080
4	4.6	4.6	9.2	1.5782	51	50.6536
5	5.8	5.8	11.6	1.7747	58	57.6061

By Linear Regression of Y on X

Slope, m	=	37.8424	Intercept, b	=	-9.4792
Correlation Coefficient*	=	0.9997			
Calibration Accepted	=	Yes/~~No~~**			

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : Serial number: 0401-1105

Calibrated by	:	Dean Chan	**Checked by**	:	Derek Lo
Date	:	30-Oct-21	**Date**	:	30-Oct-21

Lam Environmental Services Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location	:	AM2a	**Calbration Date**	:	30-Oct-21
Equipment no.	:	HVS003	**Calbration Due Date**	:	30-Dec-21

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition					
Temperature, T_a	302	Kelvin	**Pressure, P_a**	1013	mmHg

Orifice Transfer Standard Information					
Equipment No.	**3166**	**Slope, m_c**	1.88375	**Intercept, bc**	0.03970
Last Calibration Date	3-Aug-21	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$			
Next Calibration Date	3-Aug-22	$= m_c \times Q_{std} + b_c$			

Calibration of TSP						
Calibration Point	**Manometer Reading H (inches of water)**			**Q_{std}** (m^3 / min.) **X-axis**	**Continuous Flow Recorder, W** (CFM)	**IC** $(W(P_a/1013.3 \times 298/T_a)^{1/2}/35.31)$ **Y-axis**
	(up)	(down)	(difference)			
1	1.2	1.2	2.4	0.7957	23	22.8438
2	2.4	2.4	4.8	1.1341	35	34.7623
3	3.7	3.7	7.4	1.4132	45	44.6944
4	4.5	4.5	9.0	1.5607	53	52.6400
5	5.5	5.5	11.0	1.7276	58	57.6061

By Linear Regression of Y on X

Slope, m = 37.9084 Intercept, b = -7.7671

Correlation Coefficient* = 0.9979

Calibration Accepted = Yes/~~No~~**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : Serial number: 1096-2305

Calibrated by	:	Dean Chan	**Checked by**	:	Derek Lo
Date	:	30-Oct-21	**Date**	:	30-Oct-21

Lam Environmental Services Limited

Portable Dust Meter Performance Check Record

Portable Dust Meter

Type	:	Particulare Monitor
Manufacturer	:	MET ONE INSTRUMENTS
Model Number	:	BT-645
Serial Number	:	R22586
Performance Check Date	:	10-May-21

Standard Equipment

Type	:	High Volume Sampler
Manufacturer	:	TISCH
Model Number	:	TE-5170
Equipment Number	:	HVS018
Last Calibration Date	:	06-May-21

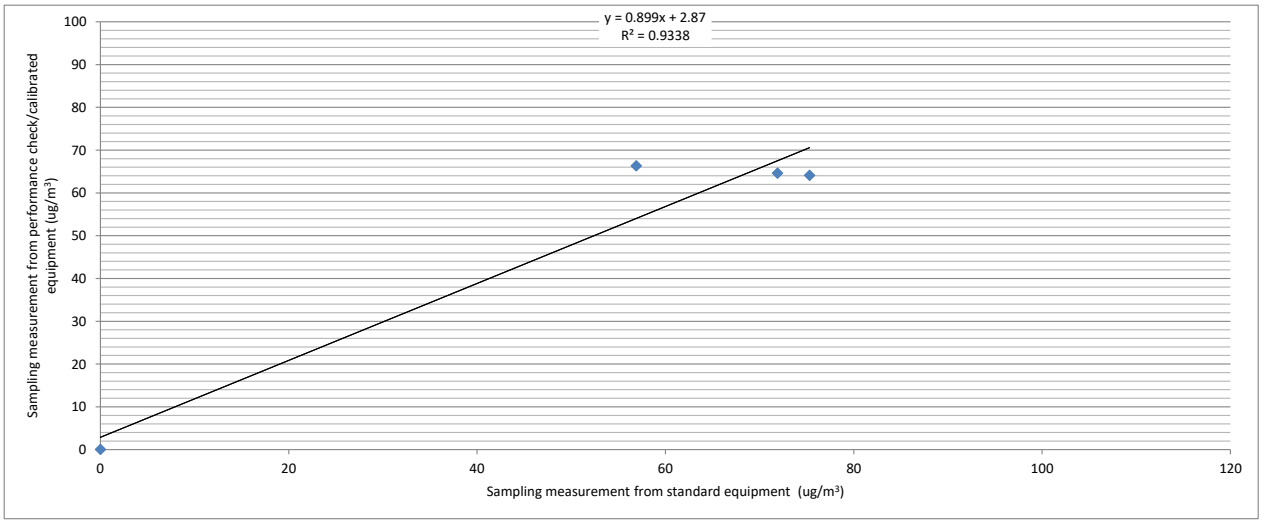
Portable Dust Meter Performance Check Results

Trial no. in 1-hr period	Time	Mean Temp (°C)	Mean Pressure (hPa)	Concentration in ug/m^3 (Standard equipment) (Y - Axis)	Concentration in ug/m^3 (Performance Check / Calibrated equipment) (X - Axis)
Zero Check	9/5/21 08:00	28	1009	0	0
1	10/5/21 08:05	28	1009	72	65
2	10/5/21 09:06	28	1009	75	64
3	10/5/21 10:07	28	1009	57	66

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor)	:	1.1000
Correlation Coefficient	:	0.9663
Validity of Performance Check / Calibration Record	:	10/5/2022



Operator:	Henry Lau	Date:	10/05/2021
Checked by:	James Chu	Date:	11/05/2021

Lam Environmental Services Limited

Portable Dust Meter Performance Check Record

Portable Dust Meter

Type	:	Particulare Monitor
Manufacturer	:	Metone AEROCET 831
Model Number	:	831
Serial Number	:	Y23153
Performance Check Date	:	30-Sep-21

Standard Equipment

Type	:	High Volume Sampler
Manufacturer	:	TISCH
Model Number	:	TE-5170
Equipment Number	:	HVS018
Last Calibration Date	:	6-Sep-21

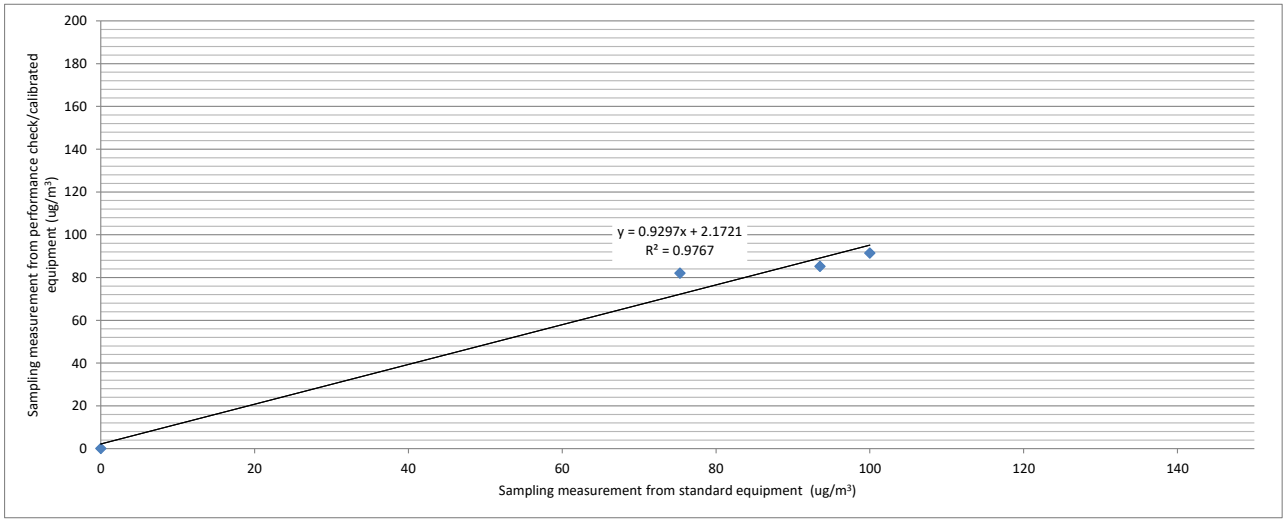
Portable Dust Meter Performance Check Results

Trial no. in 1-hr period	Time	Mean Pressure (hPa)	Mean Temp (˚C)	Concentration in ug/m^3 (Standard equipment) (X - Axis)	Concentration in ug/m^3 (Performance Check / Calibrated equipment) (Y - Axis)
Zero Check	29/9/2021 08:00	1008	30	0	0
1	30/9/2021 09:26	1008	30	94	85
2	30/9/2021 10:27	1008	30	100	91
3	30/9/2021 11:28	1008	30	75	82

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor)	:	1.1000
Correlation Coefficient	:	0.9883
Validity of Performance Check / Calibration Record	:	30/9/2022



Operator:	Henry Lau	Date:	30-Sep-21
Checked by:	James Chu	Date:	1-Oct-21

Lam Environmental Services Limited

Portable Dust Meter Performance Check Record

Portable Dust Meter

Type	:	Particulare Monitor
Manufacturer	:	Metone AEROCET 831
Model Number	:	831
Serial Number	:	Y23160
Performance Check Date	:	29-Dec-20

Standard Equipment

Type	:	High Volume Sampler
Manufacturer	:	TISCH
Model Number	:	TE-5170
Equipment Number	:	HVS000
Last Calibration Date	:	28-Dec-20

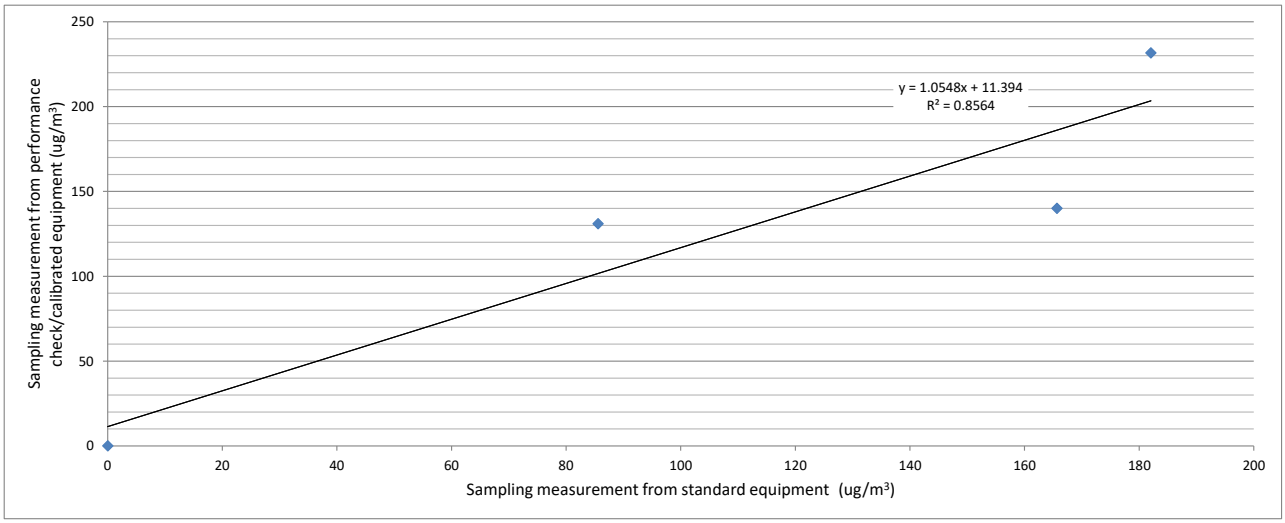
Portable Dust Meter Performance Check Results

Trial no. in 1-hr period	Time	Mean Pressure (hPa)	Mean Temp (˚C)	Concentration in ug/m^3 (Standard equipment) (X - Axis)	Concentration in ug/m^3 (Performance Check / Calibrated equipment) (Y - Axis)
Zero Check	28/12/2020 08:00	0	0	0	0
1	29/12/2020 08:04	1015	21	182	232
2	29/12/2020 09:05	1015	21	166	140
3	29/12/2020 10:06	1015	21	86	131

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor)	:	0.9000
Correlation Coefficient	:	0.9254
Validity of Performance Check / Calibration Record	:	29/12/2021



Operator:	Henry Lau	Date:	29-Dec-20
Checked by:	James Chu	Date:	30-Dec-20

Lam Environmental Services Limited

Portable Dust Meter Performance Check Record

Portable Dust Meter

Type	:	Particulare Monitor
Manufacturer	:	MET ONE INSTRUMENTS
Model Number	:	BT-645
Serial Number	:	X19299
Performance Check Date	:	10-May-21

Standard Equipment

Type	:	High Volume Sampler
Manufacturer	:	TISCH
Model Number	:	TE-5170
Equipment Number	:	HVS018
Last Calibration Date	:	06-May-21

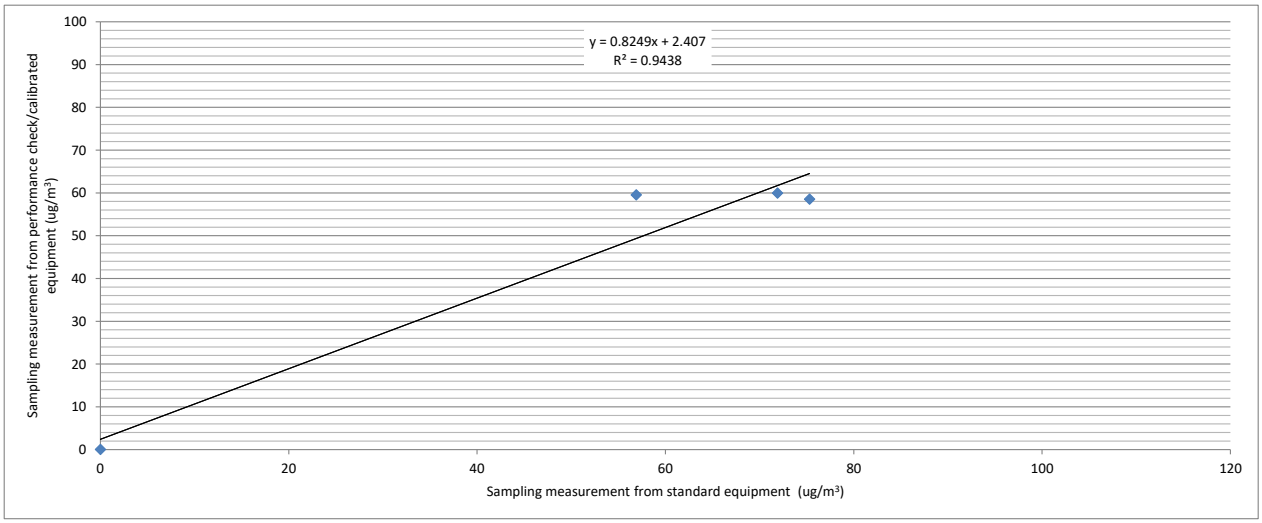
Portable Dust Meter Performance Check Results

Trial no. in 1-hr period	Time	Mean Temp (°C)	Mean Pressure (hPa)	Concentration in ug/m^3 (Standard equipment) (Y - Axis)	Concentration in ug/m^3 (Performance Check / Calibrated equipment) (X - Axis)
Zero Check	9/5/21 08:00	28	1009	0	0
1	10/5/21 08:05	28	1009	72	60
2	10/5/21 09:06	28	1009	75	59
3	10/5/21 10:07	28	1009	57	60

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor)	:	1.2000
Correlation Coefficient	:	0.9715
Validity of Performance Check / Calibration Record	:	10/5/2022



Operator:	Henry Lau	Date:	10/05/2021
Checked by:	James Chu	Date:	11/05/2021

出 厂 检 验 报 告

产品名称： 在线式风速风向仪

产品型号： YGY-FSXY1

被检产品 SN 号： YG 21071630T0924

武汉辰云科技有限公司

2021 年 8 月 9 日

1. 检验类别

一、在线式风速风向仪

检验项目	检测要求	检测结果
外观检查	1. 要求成品外观无破损，各部件完整，无掉漆，无凹陷变形； 2. 采集仪内部无目视可见灰尘杂物油污，布局整洁美观； 3. 芯线，航插完整，保护皮无破损，无油污；	
结构检查	1. 内部电路板固定牢固可靠，无挤压，无晃动； 2. 检查防尘防水措施是否到位，密封是否严密，端子与外壳缝隙不宜过大，以不透光为原则；	

二、风速风向传感器示值校准结果

实际风速（m/s）	指示风速（m/s）
0.5	启动
1	0.8
5	4.8
10	9.9
15	14.8
20	20.2
25	25.2
30	29.7

实际风向（°）	指示风向（°）
45	44
90	89
135	136
200	202
235	234
275	275
315	313
359	0

2. 备注 NOTE

数据采集仪数据显示风速、风向值正常，通过 RJ45 通讯与电脑连接，仪器软件数据显示正常。

3. 检验结论：

各项检测和实验结果表明：

在线式风速风向仪 仪器全部测试通过，系统硬件测试符合工厂（ 武汉易谷科技有限公司检验标准 ）测试标准。符合技术文件的要求，检验合格，准予出厂。

4. 校准的环境条件：

环境条件： 温度：27.5，相对湿度：61.0%RH，大气压力：1013.3hpa

测试员： 李元华

检验员：吴肖

测试日期：2021 年 8 月 9 日

綜合試驗有限公司
SOILS & MATERIALS ENGINEERING CO., LTD.
香港新界葵涌永基路22-24號好爸爸創科大廈
Good Ba Ba Hitech Building, Nos. 22-24 Wing Kei Road, Kwai Chung, New Territories, Hong Kong
Tel: (852) 2873 6860 Fax: (852) 2555 7533 E-mail: smec@cigismec.com Website: www.cigismec.com

CERTIFICATE OF CALIBRATION

Certificate No.: 21CA0526 02-01 **Page** 1 **of** 2

Item tested

Description:	Sound Level Meter (Type 1)	Microphone	Preamp
Manufacturer:	Larson Davis	PCB	PCB
Type/Model No.:	LxT1	377B02	PRMLxT1L
Serial/Equipment No.:	0004797	163704	042622
Adaptors used:	-	-	-

Item submitted by

Customer Name:	Lam Environmental Services Limited.
Address of Customer:	-
Request No.:	-
Date of receipt:	26-May-2021

Date of test: 27-May-2021

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Multi function sound calibrator	B&K 4226	2288444	23-Aug-2021	CIGISMEC
Signal generator	DS 360	61227	31-Dec-2021	CEPREI

Ambient conditions

Temperature:	22 ± 1 °C
Relative humidity:	55 ± 10 %
Air pressure:	1005 ± 5 hPa

Test specifications

1, The Sound Level Meter has been calibrated in accordance with the requirements as specified in BS 7580: Part 1: 1997 and the lab calibration procedure SMTP004-CA-152.

2, The electrical tests were performed using an electrical signal substituted for the microphone which was removed and replaced by an equivalent capacitance within a tolerance of ±20%.

3, The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference between the free-field and pressure responsess of the Sound Level Meter.

Test results

This is to certify that the Sound Level Meter conforms to BS 7580: Part 1: 1997 for the conditions under which the test was performed.

Details of the performed measurements are presented on page 2 of this certificate.

Actual Measurement data are documented on worksheets.

Approved Signatory: Feng Junqi **Date:** 28-May-2021 **Company Chop:**

SOILS AND MATERIALS ENGINEERING COMPANY LTD. 綜合試驗有限公司

Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument. The results apply to the item as received.

綜合試驗有限公司
SOILS & MATERIALS ENGINEERING CO., LTD.
香港新界葵涌永基路22-24號好爸爸創科大廈
Good Ba Ba Hitech Building, Nos. 22-24 Wing Kei Road, Kwai Chung, New Territories, Hong Kong
Tel: (852) 2873 6860 Fax: (852) 2555 7533 E-mail: smec@cigismec.com Website: www.cigismec.com

HOKLAS 028 CAL

CERTIFICATE OF CALIBRATION

(Continuation Page)

Certificate No.: 21CA0526 02-01 **Page** 2 **of** 2

1, Electrical Tests

The electrical tests were perfomed using an equivalent capacitance substituted for the microphone. The results are given in below with test status and the estimated uncertainties. The "Pass" means the result of the test is inside the tolerances stated in the test specifications. The "-" means the result of test is outside these tolerances.

Test:	Subtest:	Status:	Expanded Uncertainty (dB)	Coverage Factor
Self-generated noise	A	Pass	0.3	
	C	Pass	0.8	2.1
	Lin	Pass	1.6	2.2
Linearity range for Leq	At reference range , Step 5 dB at 4 kHz	Pass	0.3	
	Reference SPL on all other ranges	Pass	0.3	
	2 dB below upper limit of each range	Pass	0.3	
	2 dB above lower limit of each range	Pass	0.3	
Linearity range for SPL	At reference range , Step 5 dB at 4 kHz	Pass	0.3	
Frequency weightings	A	Pass	0.3	
	C	Pass	0.3	
	Lin	Pass	0.3	
Time weightings	Single Burst Fast	Pass	0.3	
	Single Burst Slow	Pass	0.3	
Peak response	Single 100μs rectangular pulse	Pass	0.3	
R.M.S. accuracy	Crest factor of 3	Pass	0.3	
Time weighting I	Single burst 5 ms at 2000 Hz	Pass	0.3	
	Repeated at frequency of 100 Hz	Pass	0.3	
Time averaging	1 ms burst duty factor $1/10^3$ at 4kHz	Pass	0.3	
	1 ms burst duty factor $1/10^4$ at 4kHz	Pass	0.3	
Pulse range	Single burst 10 ms at 4 kHz	Pass	0.4	
Sound exposure level	Single burst 10 ms at 4 kHz	Pass	0.4	
Overload indication	SPL	Pass	0.3	
	Leq	Pass	0.4	

2, Acoustic tests

The complete sound level meter was calibrated on the reference range using a B&K 4226 acoustic calibrator with 1000Hz and SPL 94 dB. The sensitivity of the sound level meter was adjusted. The test result at 125 Hz and 8000 Hz are given in below with test status and the estimated uncertainties.

Test:	Subtest	Status	Expanded Uncertainty (dB)	Coverage Factor
Acoustic response	Weighting A at 125 Hz	Pass	0.3	
	Weighting A at 8000 Hz	Pass	0.5	

3, Response to associated sound calibrator

N/A

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.

- End -

Calibrated by: Fung Chi Yip **Date:** 27-May-2021

Checked by: Chan Yuk Yiu **Date:** 28-May-2021

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.

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SMECLab

Sound level meter	type:	LxT1	Serial No.	0004797	Date 27-May-2021
Microphone	type:	377B02	Serial No.	163704	
Preamp	type:	PRMLxT1L	Serial No.	042622	Report: 21CA0526 02-01

SELF GENERATED NOISE TEST

The noise test is performed in the most sensitive range of the SLM with the microphone replaced by an equivalent impedance.

Noise level in A weighting	10.6	dB
Noise level in C weighting	14.8	dB
Noise level in Lin	22.3	dB

LINEARITY TEST

The linearity is tested relative to the reference sound pressure level using a continuous sinusoidal signal of frequency 4 kHz. The measurement is made on the reference range for indications at 5 dB intervals starting from the 94 dB reference sound pressure level. And until within 5 dB of the upper and lower limits of the reference range, the measurements shall be made at 1 dB intervals.(SLM set to LEQ/SPL)

Reference/Expected level	Actual level		Tolerance	Deviation	
	non-integrated	integrated		non-integrated	integrated
dB	dB	dB	+/- dB	dB	dB
94.0	94.0	94.0	0.7	0.0	0.0
99.0	99.0	99.0	0.7	0.0	0.0
104.0	104.0	104.0	0.7	0.0	0.0
109.0	109.0	109.0	0.7	0.0	0.0
114.0	114.0	114.0	0.7	0.0	0.0
115.0	115.0	115.0	0.7	0.0	0.0
116.0	116.0	116.0	0.7	0.0	0.0
117.0	117.0	117.0	0.7	0.0	0.0
118.0	118.0	118.0	0.7	0.0	0.0
119.0	119.0	119.0	0.7	0.0	0.0
120.0	120.0	120.0	0.7	0.0	0.0
89.0	89.0	89.0	0.7	0.0	0.0
84.0	84.0	84.0	0.7	0.0	0.0
79.0	79.0	79.0	0.7	0.0	0.0
74.0	73.9	73.9	0.7	-0.1	-0.1
69.0	68.9	68.9	0.7	-0.1	-0.1
64.0	63.9	63.9	0.7	-0.1	-0.1
59.0	58.9	58.9	0.7	-0.1	-0.1
54.0	53.9	53.9	0.7	-0.1	-0.1
49.0	48.9	48.9	0.7	-0.1	-0.1
44.0	43.9	43.9	0.7	-0.1	-0.1
39.0	38.9	38.9	0.7	-0.1	-0.1
34.0	33.9	33.9	0.7	-0.1	-0.1
33.0	32.9	32.9	0.7	-0.1	-0.1

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SMECLab

Sound level meter type:	LxT1	Serial No.	0004797	Date	27-May-2021
Microphone type:	377B02	Serial No.	163704		
Preamp type:	PRMLxT1L	Serial No.	042622	Report:	21CA0526 02-01

32.0	31.9	31.9	0.7	-0.1	-0.1
31.0	30.9	30.9	0.7	-0.1	-0.1
30.0	29.9	29.9	0.7	-0.1	-0.1

Measurements for an indication of the reference SPL on all other ranges which include it

Other ranges	Expected level	Actual level	Tolerance	Deviation
dB	dB	dB	+/- dB	dB
20-120	94.0	94.0	0.7	0.0

Measurements on all level ranges for indications 2 dB below the upper limit and 2 dB above the lower limit

Ranges	Reference/Expected level	Actual level	Tolerance	Deviation
dB	dB	dB	+/- dB	dB
20-120	30.0	29.9	0.7	-0.1
	118.0	118.0	0.7	0.0

FREQUENCY WEIGHTING TEST

The frequency response of the weighting netwoks are tested at octave intervals over the frequency ranges 31.5 Hz to 12500 Hz. The signal level at 1000 Hz is set to give an indication of the reference SPL.

Frequency weighting A:

Frequency	Ref. level	Expected level	Actual level	Tolerance(dB)		Deviation
Hz	dB	dB	dB	+	-	dB
1000.0	94.0	94.0	94.0	0.0	0.0	0.0
31.6	94.0	54.6	54.5	1.5	1.5	-0.1
63.1	94.0	67.8	67.8	1.5	1.5	0.0
125.9	94.0	77.9	77.9	1.0	1.0	0.0
251.2	94.0	85.4	85.3	1.0	1.0	-0.1
501.2	94.0	90.8	90.7	1.0	1.0	-0.1
1995.0	94.0	95.2	95.2	1.0	1.0	0.0
3981.0	94.0	95.0	95.0	1.0	1.0	0.0
7943.0	94.0	92.9	92.9	1.5	3.0	0.0
12590.0	94.0	89.7	89.7	3.0	6.0	0.0

Frequency weighting C:

Frequency	Ref. level	Expected level	Actual level	Tolerance(dB)		Deviation
Hz	dB	dB	dB	+	-	dB
1000.0	94.0	94.0	94.0	0.0	0.0	0.0
31.6	94.0	91.0	91.0	1.5	1.5	0.0
63.1	94.0	93.2	93.1	1.5	1.5	-0.1
125.9	94.0	93.8	93.8	1.0	1.0	0.0
251.2	94.0	94.0	94.0	1.0	1.0	0.0
501.2	94.0	94.0	94.0	1.0	1.0	0.0

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SMECLab

Sound level meter type: LxT1 Serial No. 0004797 Date 27-May-2021
Microphone type: 377B02 Serial No. 163704
Preamp type: PRMLxT1L Serial No. 042622 Report: 21CA0526 02-01

1995.0	94.0	93.8	93.8	1.0	1.0	0.0
3981.0	94.0	93.2	93.2	1.0	1.0	0.0
7943.0	94.0	91.0	91.0	1.5	3.0	0.0
12590.0	94.0	87.8	87.7	3.0	6.0	-0.1

Frequency weighting Lin:

Frequency	Ref. level	Expected level	Actual level	Tolerance(dB)		Deviation
Hz	dB	dB	dB	+	-	dB
1000.0	94.0	94.0	94.0	0.0	0.0	0.0
31.6	94.0	94.0	93.9	1.5	1.5	-0.1
63.1	94.0	94.0	93.9	1.5	1.5	-0.1
125.9	94.0	94.0	94.0	1.0	1.0	0.0
251.2	94.0	94.0	94.0	1.0	1.0	0.0
501.2	94.0	94.0	94.0	1.0	1.0	0.0
1995.0	94.0	94.0	94.0	1.0	1.0	0.0
3981.0	94.0	94.0	94.0	1.0	1.0	0.0
7943.0	94.0	94.0	94.0	1.5	3.0	0.0
12590.0	94.0	94.0	94.0	3.0	6.0	0.0

TIME WEIGHTING FAST TEST

Time weighting F is tested on the reference range with a single sinusoidal burst of duration 200 ms at a frequency 2000 Hz and an amplitude which produces an indication 4 dB below the upper limit of the primary indicator range when the signal is continuous. (Weight A, Maximum hold)

Ref. level	Expected level	Actual level	Tolerance(dB)		Deviation
dB	dB	dB	+	-	dB
116.0	115.0	114.9	1.0	1.0	-0.1

TIME WEIGHTING SLOW TEST

Time weighting S is tested on the reference range with a single sinusoidal burst of duration 500 ms at a frequency 2000 Hz and an amplitude which produces an indication 4 dB below the upper limit of the primary indicator range when the signal is continuous. (Weight A, Maximum hold)

Ref. level	Expected level	Actual level	Tolerance(dB)		Deviation
dB	dB	dB	+	-	dB
116.0	111.9	111.8	1.0	1.0	-0.1

PEAK RESPONSE TEST

The onset time of the peak detector is tested on the reference range by comparing the response to a 100 us rectangular test pulse with the response to a 10 ms reference pulse of the same amplitude. The amplitude of the 10 ms reference pulse is such as to produce an indication 1 dB below the upper limit of the primary indicator range.

Positive polarities: (Weighting Z, set the generator signal to single, Lzpeak)

Ref. level	Response to 10 ms	Response to 100 us	Tolerance	Deviation
dB	dB	dB	+/- dB	dB
119.0	119.0	118.7	2.0	-0.3

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SMECLab

Sound level meter type:	LxT1	Serial No.	0004797	Date	27-May-2021
Microphone type:	377B02	Serial No.	163704		
Preamp type:	PRMLxT1L	Serial No.	042622	Report:	21CA0526 02-01

Negative polarities:

Ref. level	Response to 10 ms	Response to 100 us	Tolerance	Deviation
dB	dB	dB	+/- dB	dB
119.0	119.0	118.7	2.0	-0.3

RMS ACCURACY TEST

The RMS detector accuracy is tested on the reference range for a crest factor of 3.

Test frequency: 2000 Hz
Amplitude: 2 dB below the upper limit of the primary indicator range.
Burst repetition frequency: 40 Hz
Tone burst signal: 11 cycles of a sine wave of frequency 2000 Hz. (Set to INT)

	Ref. Level	Expected level	Tone burst signal	Tolerance	Deviation
Time wighting	dB	dB	indication(dB)	+/- dB	dB
Slow	114.0+6.6	114.0	113.9	0.5	-0.1

TIME WEIGHTING IMPULSE TEST

Time weighting I is tested on the reference range (Set the SLM to LAImax)
Test frequency: 2000 Hz
Amplitude: The upper limit of the primary indicator range.

Single sinusoidal burst of duration 5 ms:

Ref. Level	Single burst indication		Tolerance	Deviation
dB	Expected (dB)	Actual (dB)	+/- dB	dB
120.0	111.2	111.1	2.0	-0.1

Repeated at 100 Hz

Ref. Level	Repeated burst indication		Tolerance	Deviation
dB	Expected (dB)	Actual (dB)	+/- dB	dB
120.0	117.3	117.1	1.0	-0.2

TIME AVERAGING TEST

This test compares the SLM reading for continuous sine signals with readings obtained from a sine tone burst sequence having the same RMS level. The test level is 30 dB below the upper limit of the linearity range and repeated for Type 1 SLM with 40 dB below the upper limit of the linearity.

Frequency of tone burst: 4000 Hz
Duration of tone burst: 1 ms

Repetition Time	Level of tone burst	Expected Leq	Actual Leq	Tolerance	Deviation	Remarks
msec	dB	dB	dB	+/- dB	dB	
1000	90.0	90.0	89.9	1.0	-0.1	60s integ.
10000	80.0	80.0	79.9	1.0	-0.1	6min. integ.

PULSE RANGE AND SOUND EXPOSURE LEVEL TEST

The test tone burst signal is superimposed on a baseline signal corresponding to the lower limit of reference range

Test frequency: 4000 Hz
Integration time: 10 sec

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SMECLab

Sound level meter type:	LxT1	Serial No.	0004797	Date	27-May-2021
Microphone type:	377B02	Serial No.	163704		
Preamp type:	PRMLxT1L	Serial No.	042622	Report:	21CA0526 02-01

The integrating sound level meter set to Leq:

Duration	Rms level of	Expected	Actual	Tolerance	Deviation
msec	tone burst (dB)	dB	dB	+/- dB	dB
10	88.0	58.0	58.0	1.7	0.0

The integrating sound level meter set to SEL:

Duration	Rms level of	Expected	Actual	Tolerance	Deviation
msec	tone burst (dB)	dB	dB	+/- dB	dB
10.0	88.0	68.0	68.0	1.7	0.0

OVERLOAD INDICATION TEST

For SLM capable of operating in a non-integrating mode.

Test frequency: 2000 Hz
Amplitude: 2 dB below the upper limit of the primary indicator range.
Burst repetition frequency: 40 Hz
Tone burst signal: 11 cycles of a sine wave of frequency 2000 Hz.

Level	Level reduced by	Further reduced	Difference	Tolerance	Deviation
at overload (dB)	1 dB	3 dB	dB	dB	dB
113.4	112.4	109.4	3.0	1.0	0.0

For integrating SLM, with the instrument indicating Leq.

For integrating SLM, with the instrument indicating Leq and set to the reference range. The test signal as following:
The test tone burst signal is superimposed on a baseline signal corresponding to the lower limit of reference range

Test frequency: 4000 Hz
Integration time: 10 sec
Single burst duration: 1 msec

Rms level	Level reduced by	Expected level	Actual level	Tolerance	Deviation
at overload (dB)	1 dB	dB	dB	dB	dB
120.2	119.2	79.2	79.2	2.2	0.0

ACOUSTIC TEST

The acoustic test of the complete SLM is tested at the frequency 125 Hz and 8000 Hz using a B&K type 4226 Multifunction Acoustic Calibrator. The test is performed in A weighting.

Frequency	Expected level	Actual level	Tolerance (dB)		Deviation
Hz	dB	Measured (dB)	+	-	dB
1000	94.0	94.0	0.0	0.0	0.0
125	77.9	78.1	1.0	1.0	0.2
8000	92.9	91.2	1.5	3.0	-1.7

----------END---------

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HOKLAS 028 CAL

CERTIFICATE OF CALIBRATION

Certificate No.: 21CA0120 03 **Page:** 1 **of** 2

Item tested

Description:	Acoustical Calibrator (Class 1)
Manufacturer:	Honglim Co., Ltd.
Type/Model No.:	HLES-02
Serial/Equipment No.:	2019612870
Adaptors used:	-

Item submitted by

Curstomer:	Lam Environmental Services Limited.
Address of Customer:	-
Request No.:	-
Date of receipt:	20-Jan-2021

Date of test: 24-Jan-2021

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Lab standard microphone	B&K 4180	2341427	11-May-2021	SCL
Preamplifier	B&K 2673	2743150	03-Jun-2021	CEPREI
Measuring amplifier	B&K 2610	2346941	03-Jun-2021	CEPREI
Signal generator	DS 360	33873	19-May-2021	CEPREI
Digital multi-meter	34401A	US36087050	19-May-2021	CEPREI
Audio analyzer	8903B	GB41300350	18-May-2021	CEPREI
Universal counter	53132A	MY40003662	18-May-2021	CEPREI

Ambient conditions

Temperature:	21 ± 1 °C
Relative humidity:	55 ± 10 %
Air pressure:	1000 ± 5 hPa

Test specifications

1, The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B and the lab calibration procedure SMTP004-CA-156.

2, The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique.

3, The results are rounded to the nearest 0.01 dB and 0.1 Hz and have not been corrected for variations from a reference pressure of 1013.25 hectoPascals as the maker's information indicates that the instrument is insensitive to pressure changes.

Test results

This is to certify that the sound calibrator conforms to the requirements of annex B of IEC 60942: 1997 for the conditions under which the test was performed. This does not imply that the sound calibrator meets IEC 60942 under any other conditions.

Details of the performed measurements are presented on **page 2** of this certificate.

Approved Signatory: Feng Junqi **Date:** 25-Jan-2021 **Company Chop:** SOILS AND MATERIALS ENGINEERING COMPANY LTD. 綜合試驗有限公司

Comments: The results reported in this certificate refer to the conditon of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument. The results apply to the item as received.

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HOKLAS 028 CAL

CERTIFICATE OF CALIBRATION

(Continuation Page)

Certificate No.: 21CA0120 03 **Page:** 2 of 2

1, Measured Sound Pressure Level

The output Sound Pressure Level in the calibrator head was measured at the setting and frequency shown using a calibrated laboratory standard microphone and insert voltage technique. The results are given in below with the estimated uncertainties.

(Output level in dB re 20 μPa)

Frequency Shown Hz	Output Sound Pressure Level Setting dB	Measured Output Sound Pressure Level dB	Estimated Expanded Uncertainty dB
1000	94.00	93.77	0.10

2, Sound Pressure Level Stability - Short Term Fluctuations

The Short Term Fluctuations was determined by measuring the maximum and minimum of the fast weighted DC output of the B&K 2610 measuring amplifier over a 20 second time interval as required in the standard. The Short Term Fluctuation was found to be:

At 1000 Hz **STF = 0.013 dB**

Estimated expanded uncertainty 0.005 dB

3, Actual Output Frequency

The determination of actual output frequency was made using a B&K 4180 microphone together with a B&K 2673 preamplifier connected to a B&K 2610 measuring amplifier. The AC output of the B&K 2610 was taken to an universal counter which was used to determine the frequency averaged over 20 second of operation as required by the standard. The actual output frequency at 1 KHz was:

At 1000 Hz **Actual Frequency = 999.3 Hz**

Estimated expanded uncertainty 0.1 Hz Coverage factor k = 2.2

4, Total Noise and Distortion

For the Total Noise and Distortion measurement, the unfiltered AC output of the B&K 2610 measuring amplifier was connected to an Agilent Type 8903 B distortion analyser. The TND result at 1 KHz was:

At 1000 Hz **TND = 0.4 %**

Estimated expanded uncertainty 0.7 %

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.

- End -

Calibrated by: Fung Chi Yip **Date:** 24-Jan-2021

Checked by: Feng Junqi **Date:** 25-Jan-2021

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.

Appendix 4.3

Wind Data

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
1-Dec-21	00:00	0.9	181(S)
	01:00	2.3	231(SW)
	02:00	1.9	158(SSE)
	03:00	2.1	232(SW)
	04:00	2.1	214(SW)
	05:00	0.9	159(SSE)
	06:00	2.3	157(SSE)
	07:00	2.7	180(S)
	08:00	1.5	37(NE)
	09:00	1.1	49(NE)
	10:00	0.7	271(W)
	11:00	1.3	137(SE)
	12:00	2.7	126(SE)
	13:00	0.9	44(NE)
	14:00	1.3	139(SE)
	15:00	0.7	140(SE)
	16:00	0.9	90(E)
	17:00	0.9	187(S)
	18:00	0.5	182(S)
	19:00	0.9	318(NW)
	20:00	0.0	163(SSE)
	21:00	0.0	51(NE)
	22:00	0.5	77(ENE)
	23:00	0.7	208(SSW)
2-Dec-21	00:00	0.5	175(S)
	01:00	1.1	93(E)
	02:00	0.7	200(SSW)
	03:00	1.5	311(NW)
	04:00	0.9	240(WSW)
	05:00	0.9	39(NE)
	06:00	0.7	199(SSW)
	07:00	1.5	257(WSW)
	08:00	1.1	149(SSE)
	09:00	1.1	283(WNW)
	10:00	1.1	202(SSW)
	11:00	0.0	120(ESE)
	12:00	1.7	145(SE)
	13:00	1.1	96(E)
	14:00	0.9	196(SSW)
	15:00	0.9	167(SSE)
	16:00	0.7	200(SSW)
	17:00	0.5	139(SE)
	18:00	0.9	252(WSW)
	19:00	0.0	108(ESE)
	20:00	0.0	299(WNW)
	21:00	0.5	133(SE)
	22:00	0.5	102(ESE)
	23:00	0.0	97(E)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
3-Dec-21	00:00	0.0	154(SSE)
	01:00	1.3	349(N)
	02:00	1.3	307(NW)
	03:00	1.1	174(S)
	04:00	0.9	128(SE)
	05:00	0.9	15(NNE)
	06:00	1.1	18(NNE)
	07:00	0.7	226(SW)
	08:00	1.5	164(SSE)
	09:00	1.3	245(WSW)
	10:00	0.5	89(E)
	11:00	0.7	99(E)
	12:00	1.3	218(SW)
	13:00	0.7	243(WSW)
	14:00	0.7	132(SE)
	15:00	0.5	160(SSE)
	16:00	1.3	192(SSW)
	17:00	2.1	161(SSE)
	18:00	0.7	266(W)
	19:00	1.1	330(NNW)
	20:00	0.0	340(NNW)
	21:00	0.0	154(SSE)
	22:00	1.7	224(SW)
	23:00	1.5	181(S)
4-Dec-21	00:00	0.9	25(NNE)
	01:00	0.0	230(SW)
	02:00	1.3	176(S)
	03:00	3.1	152(SSE)
	04:00	2.7	187(S)
	05:00	1.1	122(ESE)
	06:00	0.0	125(SE)
	07:00	0.0	107(ESE)
	08:00	2.9	146(SE)
	09:00	2.5	177(S)
	10:00	0.5	246(WSW)
	11:00	2.1	32(NNE)
	12:00	2.7	215(SW)
	13:00	0.9	90(E)
	14:00	4.3	266(W)
	15:00	0.0	210(SSW)
	16:00	1.7	152(SSE)
	17:00	1.7	210(SSW)
	18:00	0.0	248(WSW)
	19:00	0.0	340(NNW)
	20:00	0.0	195(SSW)
	21:00	0.0	180(S)
	22:00	0.0	262(W)
	23:00	0.0	341(NNW)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
5-Dec-21	00:00	0.0	125(SE)
	01:00	0.0	335(NNW)
	02:00	0.5	343(NNW)
	03:00	0.7	116(ESE)
	04:00	0.5	103(ESE)
	05:00	0.0	245(WSW)
	06:00	0.0	228(SW)
	07:00	1.3	118(ESE)
	08:00	1.3	169(S)
	09:00	1.3	116(ESE)
	10:00	0.9	209(SSW)
	11:00	4.3	92(E)
	12:00	2.5	160(SSE)
	13:00	1.5	116(ESE)
	14:00	1.5	166(SSE)
	15:00	2.1	200(SSW)
	16:00	0.7	127(SE)
	17:00	2.1	142(SE)
	18:00	0.5	165(SSE)
	19:00	0.0	336(NNW)
	20:00	0.0	319(NW)
	21:00	1.1	209(SSW)
	22:00	0.7	308(NW)
	23:00	0.0	294(WNW)
6-Dec-21	00:00	0.0	322(NW)
	01:00	0.0	75(ENE)
	02:00	0.0	149(SSE)
	03:00	0.0	336(NNW)
	04:00	0.0	330(NNW)
	05:00	1.1	332(NNW)
	06:00	1.3	333(NNW)
	07:00	1.1	355(N)
	08:00	0.0	290(WNW)
	09:00	3.7	138(SE)
	10:00	2.7	225(SW)
	11:00	1.9	85(E)
	12:00	4.1	129(SE)
	13:00	0.9	75(ENE)
	14:00	2.9	132(SE)
	15:00	0.9	202(SSW)
	16:00	1.9	208(SSW)
	17:00	1.3	133(SE)
	18:00	0.9	138(SE)
	19:00	0.0	11(N)
	20:00	0.0	297(WNW)
	21:00	0.7	333(NNW)
	22:00	0.0	323(NW)
	23:00	0.0	329(NNW)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
7-Dec-21	00:00	0.0	23(NNE)
	01:00	0.0	194(SSW)
	02:00	0.0	348(NNW)
	03:00	0.0	323(NW)
	04:00	0.0	332(NNW)
	05:00	1.1	318(NW)
	06:00	0.0	11(N)
	07:00	0.0	321(NW)
	08:00	0.0	329(NNW)
	09:00	1.3	181(S)
	10:00	2.9	51(NE)
	11:00	2.5	160(SSE)
	12:00	2.3	163(SSE)
	13:00	0.5	207(SSW)
	14:00	1.5	213(SSW)
	15:00	1.3	215(SW)
	16:00	0.9	210(SSW)
	17:00	0.0	164(SSE)
	18:00	2.3	280(W)
	19:00	1.3	159(SSE)
	20:00	1.3	196(SSW)
	21:00	2.1	228(SW)
	22:00	2.1	197(SSW)
	23:00	0.0	161(SSE)
8-Dec-21	00:00	0.0	250(WSW)
	01:00	1.1	205(SSW)
	02:00	0.9	196(SSW)
	03:00	0.0	146(SE)
	04:00	0.0	210(SSW)
	05:00	0.0	202(SSW)
	06:00	0.0	130(SE)
	07:00	0.0	191(S)
	08:00	0.0	180(S)
	09:00	0.0	205(SSW)
	10:00	0.9	292(WNW)
	11:00	2.5	198(SSW)
	12:00	1.7	145(SE)
	13:00	1.7	216(SW)
	14:00	0.0	282(WNW)
	15:00	2.1	274(W)
	16:00	3.3	262(W)
	17:00	1.1	222(SW)
	18:00	0.0	353(N)
	19:00	0.7	225(SW)
	20:00	1.7	149(SSE)
	21:00	1.9	205(SSW)
	22:00	1.9	224(SW)
	23:00	0.0	172(S)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
9-Dec-21	00:00	2.3	201(SSW)
	01:00	0.7	181(S)
	02:00	1.3	158(SSE)
	03:00	0.0	193(SSW)
	04:00	0.0	223(SW)
	05:00	0.0	176(S)
	06:00	0.0	222(SW)
	07:00	0.0	149(SSE)
	08:00	2.1	173(S)
	09:00	2.1	184(S)
	10:00	0.0	219(SW)
	11:00	1.3	154(SSE)
	12:00	0.7	263(W)
	13:00	1.7	131(SE)
	14:00	0.9	162(SSE)
	15:00	0.0	196(SSW)
	16:00	2.1	169(S)
	17:00	0.5	193(SSW)
	18:00	0.5	162(SSE)
	19:00	0.0	282(WNW)
	20:00	0.0	274(W)
	21:00	0.5	180(S)
	22:00	1.5	181(S)
	23:00	1.1	171(S)
10-Dec-21	00:00	0.0	189(S)
	01:00	0.0	263(W)
	02:00	0.0	282(WNW)
	03:00	0.0	85(E)
	04:00	0.0	330(NNW)
	05:00	0.0	63(ENE)
	06:00	0.0	318(NW)
	07:00	0.0	324(NW)
	08:00	0.0	336(NNW)
	09:00	1.7	248(WSW)
	10:00	0.0	162(SSE)
	11:00	3.1	115(ESE)
	12:00	1.3	97(E)
	13:00	2.5	159(SSE)
	14:00	0.5	169(S)
	15:00	2.3	242(WSW)
	16:00	0.5	122(ESE)
	17:00	1.9	229(SW)
	18:00	1.1	201(SSW)
	19:00	0.7	161(SSE)
	20:00	1.5	162(SSE)
	21:00	0.0	129(SE)
	22:00	1.1	180(S)
	23:00	1.7	189(S)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
11-Dec-21	00:00	1.5	195(SSW)
	01:00	0.0	183(S)
	02:00	0.0	184(S)
	03:00	1.5	190(S)
	04:00	0.0	158(SSE)
	05:00	0.0	121(ESE)
	06:00	0.0	181(S)
	07:00	0.0	194(SSW)
	08:00	1.1	159(SSE)
	09:00	2.3	282(WNW)
	10:00	0.0	192(SSW)
	11:00	0.0	84(E)
	12:00	1.1	334(NNW)
	13:00	1.7	133(SE)
	14:00	0.7	166(SSE)
	15:00	1.3	249(WSW)
	16:00	1.3	150(SSE)
	17:00	1.3	10(N)
	18:00	1.5	224(SW)
	19:00	1.7	209(SSW)
	20:00	1.5	174(S)
	21:00	1.1	212(SSW)
	22:00	0.0	186(S)
	23:00	0.0	188(S)
12-Dec-21	00:00	0.7	246(WSW)
	01:00	0.0	209(SSW)
	02:00	0.0	182(S)
	03:00	0.0	202(SSW)
	04:00	0.0	191(S)
	05:00	0.0	321(NW)
	06:00	0.0	197(SSW)
	07:00	0.0	204(SSW)
	08:00	0.5	289(WNW)
	09:00	0.5	121(ESE)
	10:00	0.0	325(NW)
	11:00	1.3	331(NNW)
	12:00	0.0	161(SSE)
	13:00	2.9	193(SSW)
	14:00	2.5	145(SE)
	15:00	1.3	122(ESE)
	16:00	1.1	135(SE)
	17:00	0.7	200(SSW)
	18:00	0.0	336(NNW)
	19:00	0.9	227(SW)
	20:00	0.7	12(NNE)
	21:00	1.9	150(SSE)
	22:00	3.3	186(S)
	23:00	2.7	176(S)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
13-Dec-21	00:00	2.9	162(SSE)
	01:00	5.9	145(SE)
	02:00	2.9	153(SSE)
	03:00	2.7	162(SSE)
	04:00	5.3	171(S)
	05:00	3.7	156(SSE)
	06:00	2.9	133(SE)
	07:00	3.7	141(SE)
	08:00	3.1	182(S)
	09:00	2.7	124(SE)
	10:00	1.9	154(SSE)
	11:00	3.7	130(SE)
	12:00	4.1	136(SE)
	13:00	1.1	179(S)
	14:00	1.5	147(SSE)
	15:00	0.0	249(WSW)
	16:00	1.3	57(ENE)
	17:00	1.1	151(SSE)
	18:00	0.0	166(SSE)
	19:00	0.0	269(W)
	20:00	0.0	221(SW)
	21:00	0.0	129(SE)
	22:00	0.0	138(SE)
	23:00	0.0	352(N)
14-Dec-21	00:00	1.1	297(WNW)
	01:00	0.0	328(NNW)
	02:00	0.5	270(W)
	03:00	0.7	297(WNW)
	04:00	0.0	329(NNW)
	05:00	0.0	189(S)
	06:00	1.7	67(ENE)
	07:00	2.1	119(ESE)
	08:00	2.1	113(ESE)
	09:00	2.1	192(SSW)
	10:00	1.1	44(NE)
	11:00	0.7	107(ESE)
	12:00	1.3	188(S)
	13:00	1.3	176(S)
	14:00	0.5	349(N)
	15:00	0.0	240(WSW)
	16:00	0.7	315(NW)
	17:00	1.1	202(SSW)
	18:00	0.9	225(SW)
	19:00	2.1	204(SSW)
	20:00	1.7	196(SSW)
	21:00	1.9	213(SSW)
	22:00	1.3	180(S)
	23:00	1.7	202(SSW)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
15-Dec-21	00:00	0.9	172(S)
	01:00	2.7	175(S)
	02:00	0.0	192(SSW)
	03:00	0.0	222(SW)
	04:00	0.0	116(ESE)
	05:00	0.0	150(SSE)
	06:00	0.0	180(S)
	07:00	0.0	161(SSE)
	08:00	1.1	199(SSW)
	09:00	0.0	193(SSW)
	10:00	2.9	169(S)
	11:00	1.7	168(SSE)
	12:00	1.9	206(SSW)
	13:00	1.5	230(SW)
	14:00	0.7	333(NNW)
	15:00	1.7	159(SSE)
	16:00	2.3	159(SSE)
	17:00	0.9	178(S)
	18:00	0.9	219(SW)
	19:00	1.3	172(S)
	20:00	0.9	234(SW)
	21:00	0.0	190(S)
	22:00	1.9	162(SSE)
	23:00	0.0	210(SSW)
16-Dec-21	00:00	0.0	127(SE)
	01:00	1.3	175(S)
	02:00	0.0	232(SW)
	03:00	1.1	202(SSW)
	04:00	1.7	181(S)
	05:00	0.7	217(SW)
	06:00	0.0	149(SSE)
	07:00	0.5	216(SW)
	08:00	0.0	220(SW)
	09:00	2.5	199(SSW)
	10:00	2.5	250(WSW)
	11:00	2.5	174(S)
	12:00	1.9	220(SW)
	13:00	1.5	156(SSE)
	14:00	4.3	199(SSW)
	15:00	2.1	170(S)
	16:00	1.7	133(SE)
	17:00	0.0	60(ENE)
	18:00	0.0	168(SSE)
	19:00	0.7	232(SW)
	20:00	0.0	124(SE)
	21:00	0.0	68(ENE)
	22:00	0.0	301(WNW)
	23:00	0.0	62(ENE)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
17-Dec-21	00:00	0.0	170(S)
	01:00	0.0	154(SSE)
	02:00	0.0	108(ESE)
	03:00	0.0	124(SE)
	04:00	0.0	206(SSW)
	05:00	0.5	92(E)
	06:00	1.7	153(SSE)
	07:00	0.5	86(E)
	08:00	1.1	46(NE)
	09:00	2.1	103(ESE)
	10:00	0.9	133(SE)
	11:00	2.1	346(NNW)
	12:00	0.7	46(NE)
	13:00	1.3	100(E)
	14:00	1.7	223(SW)
	15:00	1.1	189(S)
	16:00	1.1	147(SSE)
	17:00	0.5	123(ESE)
	18:00	1.3	134(SE)
	19:00	2.1	156(SSE)
	20:00	0.9	145(SE)
	21:00	1.5	225(SW)
	22:00	1.1	189(S)
	23:00	0.9	272(W)
18-Dec-21	00:00	0.5	137(SE)
	01:00	1.3	146(SE)
	02:00	1.1	140(SE)
	03:00	0.7	112(ESE)
	04:00	1.3	73(ENE)
	05:00	1.9	83(E)
	06:00	0.7	276(W)
	07:00	1.7	111(ESE)
	08:00	0.9	323(NW)
	09:00	1.3	128(SE)
	10:00	0.5	127(SE)
	11:00	1.1	278(W)
	12:00	1.5	141(SE)
	13:00	1.1	234(SW)
	14:00	1.1	132(SE)
	15:00	0.0	246(WSW)
	16:00	0.9	204(SSW)
	17:00	0.7	154(SSE)
	18:00	0.9	128(SE)
	19:00	0.0	75(ENE)
	20:00	0.0	90(E)
	21:00	0.0	337(NNW)
	22:00	2.1	188(S)
	23:00	1.3	141(SE)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
19-Dec-21	00:00	0.7	25(NNE)
	01:00	0.7	238(WSW)
	02:00	0.9	229(SW)
	03:00	1.1	273(W)
	04:00	0.9	18(NNE)
	05:00	0.7	109(ESE)
	06:00	1.3	32(NNE)
	07:00	0.7	27(NNE)
	08:00	0.7	63(ENE)
	09:00	0.9	190(S)
	10:00	0.7	210(SSW)
	11:00	1.5	237(WSW)
	12:00	2.1	160(SSE)
	13:00	0.7	105(ESE)
	14:00	1.3	124(SE)
	15:00	0.5	90(E)
	16:00	0.0	116(ESE)
	17:00	1.5	200(SSW)
	18:00	0.5	120(ESE)
	19:00	1.1	147(SSE)
	20:00	0.0	102(ESE)
	21:00	0.7	171(S)
	22:00	0.0	297(WNW)
	23:00	0.0	192(SSW)
20-Dec-21	00:00	0.0	113(ESE)
	01:00	0.0	112(ESE)
	02:00	0.0	196(SSW)
	03:00	1.1	185(S)
	04:00	0.7	146(SE)
	05:00	0.9	180(S)
	06:00	0.7	232(SW)
	07:00	2.5	128(SE)
	08:00	0.9	158(SSE)
	09:00	0.5	259(W)
	10:00	1.1	270(W)
	11:00	1.3	152(SSE)
	12:00	0.0	241(WSW)
	13:00	1.1	278(W)
	14:00	0.9	314(NW)
	15:00	1.7	189(S)
	16:00	0.0	151(SSE)
	17:00	1.3	283(WNW)
	18:00	1.9	102(ESE)
	19:00	1.1	197(SSW)
	20:00	1.1	129(SE)
	21:00	0.9	107(ESE)
	22:00	0.5	82(E)
	23:00	0.0	47(NE)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
21-Dec-21	00:00	0.9	246(WSW)
	01:00	2.3	102(ESE)
	02:00	0.9	50(NE)
	03:00	1.7	262(W)
	04:00	0.0	253(WSW)
	05:00	0.5	349(N)
	06:00	0.0	280(W)
	07:00	0.7	126(SE)
	08:00	0.5	275(W)
	09:00	1.7	100(E)
	10:00	1.1	219(SW)
	11:00	1.5	137(SE)
	12:00	1.1	158(SSE)
	13:00	0.9	90(E)
	14:00	0.0	98(E)
	15:00	0.7	70(ENE)
	16:00	0.9	226(SW)
	17:00	0.7	312(NW)
	18:00	0.9	347(NNW)
	19:00	0.0	343(NNW)
	20:00	0.7	51(NE)
	21:00	0.5	131(SE)
	22:00	0.5	126(SE)
	23:00	0.0	193(SSW)
22-Dec-21	00:00	0.0	241(WSW)
	01:00	0.0	121(ESE)
	02:00	0.0	136(SE)
	03:00	0.5	19(NNE)
	04:00	0.9	66(ENE)
	05:00	0.0	169(S)
	06:00	0.0	209(SSW)
	07:00	0.0	307(NW)
	08:00	0.0	128(SE)
	09:00	0.0	224(SW)
	10:00	0.0	124(SE)
	11:00	2.9	66(ENE)
	12:00	0.7	220(SW)
	13:00	1.1	100(E)
	14:00	4.3	85(E)
	15:00	1.5	82(E)
	16:00	0.0	317(NW)
	17:00	0.9	177(S)
	18:00	0.7	189(S)
	19:00	1.1	145(SE)
	20:00	2.1	195(SSW)
	21:00	0.5	218(SW)
	22:00	0.0	55(NE)
	23:00	0.9	149(SSE)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
23-Dec-21	00:00	0.5	76(ENE)
	01:00	0.0	56(NE)
	02:00	1.3	296(WNW)
	03:00	0.5	288(WNW)
	04:00	0.0	111(ESE)
	05:00	2.3	163(SSE)
	06:00	2.1	181(S)
	07:00	1.1	185(S)
	08:00	1.1	189(S)
	09:00	1.5	208(SSW)
	10:00	2.5	192(SSW)
	11:00	2.7	187(S)
	12:00	1.5	122(ESE)
	13:00	0.0	15(NNE)
	14:00	1.9	249(WSW)
	15:00	1.5	290(WNW)
	16:00	1.5	254(WSW)
	17:00	0.7	193(SSW)
	18:00	2.3	36(NE)
	19:00	1.3	122(ESE)
	20:00	0.0	19(NNE)
	21:00	0.5	254(WSW)
	22:00	0.7	169(S)
	23:00	0.0	145(SE)
24-Dec-21	00:00	0.0	228(SW)
	01:00	0.0	231(SW)
	02:00	0.0	295(WNW)
	03:00	0.7	149(SSE)
	04:00	0.0	151(SSE)
	05:00	0.0	188(S)
	06:00	0.0	244(WSW)
	07:00	0.0	197(SSW)
	08:00	0.0	158(SSE)
	09:00	0.0	206(SSW)
	10:00	1.1	224(SW)
	11:00	1.3	89(E)
	12:00	1.7	242(WSW)
	13:00	0.0	261(W)
	14:00	0.7	158(SSE)
	15:00	1.7	348(NNW)
	16:00	1.5	356(N)
	17:00	0.9	126(SE)
	18:00	0.9	30(NNE)
	19:00	0.0	126(SE)
	20:00	0.9	32(NNE)
	21:00	0.9	295(WNW)
	22:00	0.0	150(SSE)
	23:00	0.0	216(SW)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
25-Dec-21	00:00	0.9	247(WSW)
	01:00	0.5	270(W)
	02:00	0.9	213(SSW)
	03:00	1.3	193(SSW)
	04:00	1.1	198(SSW)
	05:00	1.3	151(SSE)
	06:00	0.9	134(SE)
	07:00	0.9	200(SSW)
	08:00	1.3	210(SSW)
	09:00	1.7	146(SE)
	10:00	2.9	122(ESE)
	11:00	2.7	105(ESE)
	12:00	2.7	113(ESE)
	13:00	1.1	137(SE)
	14:00	1.1	77(ENE)
	15:00	1.5	199(SSW)
	16:00	1.7	192(SSW)
	17:00	1.9	150(SSE)
	18:00	2.7	183(S)
	19:00	2.1	148(SSE)
	20:00	2.3	189(S)
	21:00	1.7	141(SE)
	22:00	0.7	220(SW)
	23:00	2.7	130(SE)
26-Dec-21	00:00	2.1	148(SSE)
	01:00	1.9	171(S)
	02:00	2.9	100(E)
	03:00	5.3	146(SE)
	04:00	2.9	134(SE)
	05:00	3.7	161(SSE)
	06:00	2.7	196(SSW)
	07:00	2.9	183(S)
	08:00	3.3	124(SE)
	09:00	3.3	130(SE)
	10:00	3.7	175(S)
	11:00	2.7	168(SSE)
	12:00	3.7	150(SSE)
	13:00	2.9	207(SSW)
	14:00	2.1	137(SE)
	15:00	2.7	54(NE)
	16:00	3.7	156(SSE)
	17:00	2.1	187(S)
	18:00	3.9	147(SSE)
	19:00	4.5	213(SSW)
	20:00	5.3	183(S)
	21:00	4.3	139(SE)
	22:00	1.7	204(SSW)
	23:00	2.9	132(SE)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
27-Dec-21	00:00	2.5	174(S)
	01:00	2.5	135(SE)
	02:00	4.5	123(ESE)
	03:00	3.7	135(SE)
	04:00	7.3	163(SSE)
	05:00	4.3	170(S)
	06:00	3.5	155(SSE)
	07:00	3.9	125(SE)
	08:00	2.7	88(E)
	09:00	3.3	123(ESE)
	10:00	5.1	113(ESE)
	11:00	3.7	123(ESE)
	12:00	1.3	120(ESE)
	13:00	0.9	222(SW)
	14:00	2.5	101(E)
	15:00	2.5	146(SE)
	16:00	3.7	130(SE)
	17:00	1.9	184(S)
	18:00	1.5	150(SSE)
	19:00	3.5	118(ESE)
	20:00	2.3	158(SSE)
	21:00	2.9	137(SE)
	22:00	2.5	111(ESE)
	23:00	1.7	83(E)
28-Dec-21	00:00	2.5	146(SE)
	01:00	1.3	159(SSE)
	02:00	1.1	163(SSE)
	03:00	1.1	237(WSW)
	04:00	1.1	161(SSE)
	05:00	2.9	152(SSE)
	06:00	0.9	281(W)
	07:00	0.5	49(NE)
	08:00	2.5	137(SE)
	09:00	0.9	139(SE)
	10:00	2.1	177(S)
	11:00	1.1	190(S)
	12:00	2.3	78(ENE)
	13:00	2.9	102(ESE)
	14:00	1.5	154(SSE)
	15:00	1.3	164(SSE)
	16:00	1.9	57(ENE)
	17:00	1.5	75(ENE)
	18:00	0.9	148(SSE)
	19:00	1.3	136(SE)
	20:00	0.5	176(S)
	21:00	0.7	174(S)
	22:00	0.9	203(SSW)
	23:00	0.0	351(N)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
29-Dec-21	00:00	1.5	193(SSW)
	01:00	0.9	158(SSE)
	02:00	0.5	270(W)
	03:00	1.1	89(E)
	04:00	0.9	194(SSW)
	05:00	0.0	109(ESE)
	06:00	0.0	227(SW)
	07:00	0.0	139(SE)
	08:00	0.9	286(WNW)
	09:00	0.0	209(SSW)
	10:00	0.7	141(SE)
	11:00	1.7	331(NNW)
	12:00	4.1	354(N)
	13:00	2.9	340(NNW)
	14:00	5.1	9(N)
	15:00	1.3	107(ESE)
	16:00	1.3	121(ESE)
	17:00	1.5	169(S)
	18:00	1.7	148(SSE)
	19:00	1.5	79(E)
	20:00	0.0	323(NW)
	21:00	0.7	323(NW)
	22:00	0.0	336(NNW)
	23:00	0.0	355(N)
30-Dec-21	00:00	2.1	310(NW)
	01:00	1.7	355(N)
	02:00	0.9	82(E)
	03:00	2.1	21(NNE)
	04:00	0.0	137(SE)
	05:00	1.5	89(E)
	06:00	1.9	184(S)
	07:00	1.3	131(SE)
	08:00	1.1	111(ESE)
	09:00	0.0	60(ENE)
	10:00	2.3	119(ESE)
	11:00	3.3	129(SE)
	12:00	2.5	78(ENE)
	13:00	2.9	96(E)
	14:00	2.3	145(SE)
	15:00	1.5	123(ESE)
	16:00	1.9	144(SE)
	17:00	1.7	205(SSW)
	18:00	1.1	219(SW)
	19:00	1.1	156(SSE)
	20:00	0.7	190(S)
	21:00	0	181(S)
	22:00	0.9	187(S)
	23:00	0	187(S)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
31-Dec-21	00:00	0	163(SSE)
	01:00	0	123(ESE)
	02:00	0	185(S)
	03:00	0	322(NW)
	04:00	0	209(SSW)
	05:00	0	149(SSE)
	06:00	2.5	117(ESE)
	07:00	1.5	139(SE)
	08:00	1.7	109(ESE)
	09:00	0	202(SSW)
	10:00	2.3	142(SE)
	11:00	1.5	240(WSW)
	12:00	1.9	111(ESE)
	13:00	3.5	94(E)
	14:00	2.7	85(E)
	15:00	2.1	295(WNW)
	16:00	2.1	205(SSW)
	17:00	1.7	184(S)
	18:00	1.9	205(SSW)
	19:00	1.9	193(SSW)
	20:00	1.1	251(WSW)
	21:00	0.5	99(E)
	22:00	0	318(NW)
	23:00	1.5	185(S)

Appendix 5.1

Monitoring Schedule for Reporting Month and Next Reporting Month

Contract No. SPW 12/2021
Environmental Team (2021-2024)
for Shek Wui Effluent Polishing Plant - Main Works
Tentative Impact Monitoring Schedule
Dec 2021

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			01 Dec	02 Dec	03 Dec AQM - 24hr TSP Ecological Monitoring	04 Dec AQM - 1hr TSP
05 Dec	06 Dec	07 Dec	08 Dec	09 Dec AQM - 24hr TSP	10 Dec AQM - 1hr TSP NM Ecological Monitoring	11 Dec
12 Dec	13 Dec	14 Dec	15 Dec AQM - 24hr TSP	16 Dec AQM - 1hr TSP NM	17 Dec Ecological Monitoring	18 Dec
19 Dec	20 Dec	21 Dec AQM - 24hr TSP	22 Dec AQM - 1hr TSP NM	23 Dec Ecological Monitoring	24 Dec	25 Dec
26 Dec	27 Dec AQM - 24hr TSP	28 Dec AQM - 1hr TSP NM	29 Dec	30 Dec	31 Dec Ecological Monitoring	

Remark:

- AQM: Air Quality Monitoring
- NM: Noise Monitoring, the monitoring dates are tentative and subject to change
- Ecological Monitoring dates are tentative and subject to change based on real-time tide.

Contract No. SPW 12/2021
Environmental Team (2021-2024)
for Shek Wui Effluent Polishing Plant - Main Works
Tentative Impact Monitoring Schedule
Jan 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						01 Jan AQM - 24hr TSP
02 Jan	03 Jan AQM - 1hr TSP NM	04 Jan	05 Jan	06 Jan	07 Jan AQM - 24hr TSP Ecological Monitoring	08 Jan AQM - 1hr TSP
09 Jan	10 Jan	11 Jan	12 Jan	13 Jan AQM - 24hr TSP	14 Jan AQM - 1hr TSP NM Ecological Monitoring	15 Jan
16 Jan	17 Jan	18 Jan	19 Jan AQM - 24hr TSP	20 Jan AQM - 1hr TSP NM	21 Jan Ecological Monitoring	22 Jan
23 Jan	24 Jan	25 Jan AQM - 24hr TSP	26 Jan AQM - 1hr TSP NM	27 Jan	28 Jan Ecological Monitoring	29 Jan AQM - 24hr TSP
30 Jan	31 Jan AQM - 1hr TSP NM					

Remark:

- AQM: Air Quality Monitoring
- NM: Noise Monitoring, the monitoring dates are tentative and subject to change
- Ecological Monitoring dates are tentative and subject to change based on real-time tide.

Appendix 5.2

Noise Monitoring Results and Graphical Presentations

Noise Monitoring Result

Day Time (0700 - 1900hrs on weekday)

Location: NM1 - G/F, Wai Loi Tsuen

Date	Time	Weather	Wind Speed (m/s)	Measurement Noise Level Leq	L10	L90	Baseline Level Leq	Construction Noise Level Leq	Limit Level Leq
				Unit: dB(A), (30min)					
10/12/2021	13:00	Fine	0.0	56.5	59.2	54.3	63.4	57	75
16/12/2021	10:00	Fine	0.0	57.1	60.5	52.6	63.4	57	75
22/12/2021	13:00	Fine	0.0	57.8	59.9	54.1	63.4	58	75
28/12/2021	13:10	Fine	0.0	57.5	59.5	53.5	63.4	58	75

Location: NM2 - G/F, Fu Tei Au

Date	Time	Weather	Wind Speed (m/s)	Measurement Noise Level Leq	L10	L90	Baseline Level Leq	Construction Noise Level Leq	Limit Level Leq
				Unit: dB(A), (30-min)					
10/12/2021	14:00	Fine	0.0	58.0	61.0	53.0	58.0	58	75
16/12/2021	10:45	Fine	0.0	58.2	61.1	53.1	58.0	45	75
22/12/2021	13:50	Fine	0.0	57.8	59.8	55.6	58.0	58	75
28/12/2021	14:00	Fine	0:00	57.9	59.8	56.0	58.0	58	75

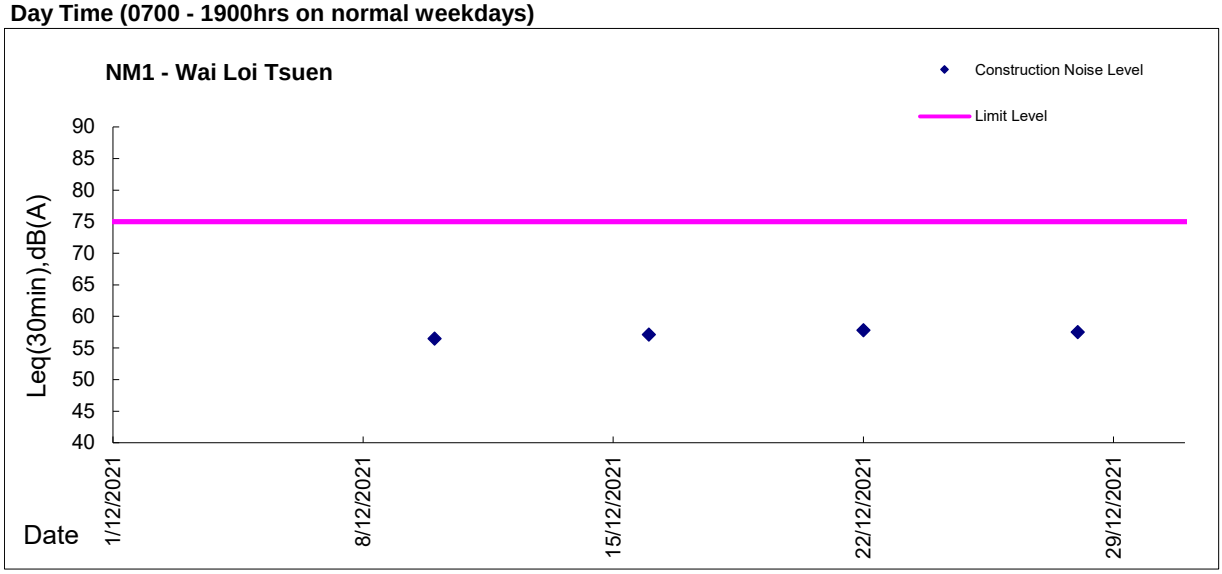
Location: NM3 - G/F, Man kok Village

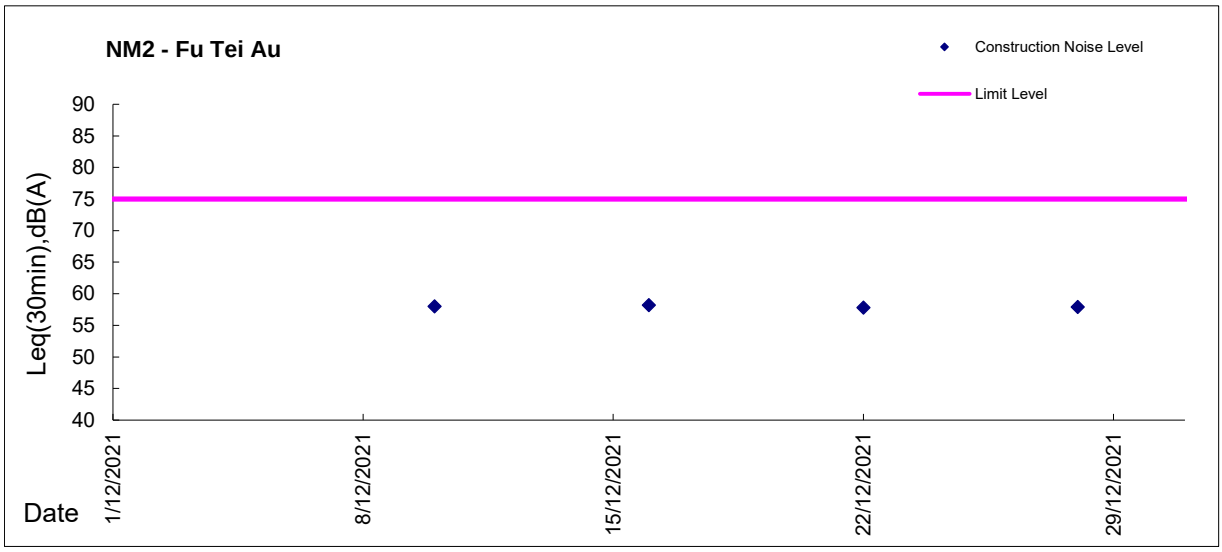
Date	Time	Weather	Wind Speed (m/s)	Measurement Noise Level Leq	L10	L90	Baseline Level Leq	Construction Noise Level Leq	Limit Level Leq
				Unit: dB(A), (30min)					
10/12/2021	15:00	Fine	0.0	61.5	64.5	58.9	63.4	62	75
16/12/2021	11:30	Fine	0.0	61.0	64.2	58.9	63.4	61	75
22/12/2021	15:00	Fine	0.0	60.7	63.0	58.7	63.4	61	75
28/12/2021	15:00	Fine	0:00	60.8	62.9	57.9	63.4	61	75

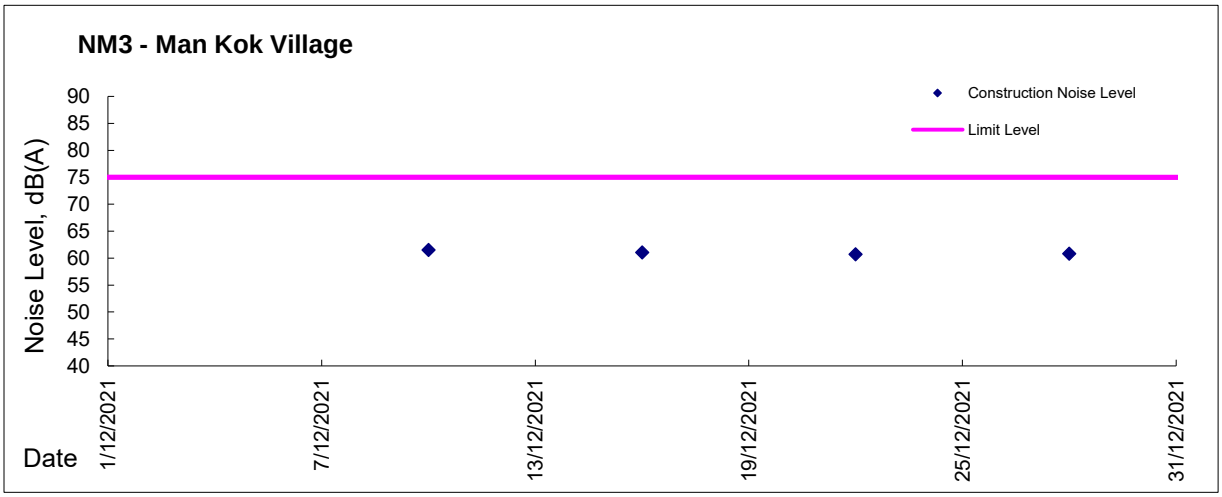
* Free field correction (Additional 3dB(A)) was made on NM1, NM2, and NM3 measurement result

Graphic Presentation of Noise Monitoring Result

Day Time (0700 - 1900hrs on normal weekdays)







Appendix 5.3

Air Quality Monitoring Results and Graphical Presentations

Report on 1-hour TSP monitoring at AM1 - Wai Loi Tsuen
Action Level (μg/m3) - 320
Limit Level (μg/m3) - 500

Date	Weather Condition	Time	Mass Concentration (μg/m3)	Model No.	Serial No.
4-Dec-21	Fine	8:56	11	831	Y23160
4-Dec-21	Fine	9:57	183		
4-Dec-21	Fine	10:58	98		
10-Dec-21	Fine	13:00	18	BT-645	R22586
10-Dec-21	Fine	14:01	16		
10-Dec-21	Fine	15:02	18		
16-Dec-21	Fine	8:49	20		
16-Dec-21	Fine	9:50	33		
16-Dec-21	Fine	10:51	26		
22-Dec-21	Fine	13:40	17		X19299
22-Dec-21	Fine	14:41	18		
22-Dec-21	Fine	15:42	18		
28-Dec-21	Fine	13:15	18		
28-Dec-21	Fine	14:16	16		
28-Dec-21	Fine	15:17	18		

Report on 1-hour TSP monitoring at AM2 - Fu Tei Au
Action Level (μg/m3) - 322
Limit Level (μg/m3) - 500

Date	Weather Condition	Time	Mass Concentration (μg/m3)	Model No.	Serial No.
4-Dec-21	Fine	8:44	30	831	Y23153
4-Dec-21	Fine	9:58	102		
4-Dec-21	Fine	10:59	100		
10-Dec-21	Fine	13:01	19	BT-645	X19299
10-Dec-21	Fine	14:02	18		
10-Dec-21	Fine	15:03	20		
16-Dec-21	Fine	8:41	31		
16-Dec-21	Fine	9:42	29		
16-Dec-21	Fine	10:43	30		
22-Dec-21	Fine	13:15	15		R22586
22-Dec-21	Fine	14:16	15		
22-Dec-21	Fine	15:17	15		
28-Dec-21	Fine	13:10	18		R22586
28-Dec-21	Fine	14:11	18		
28-Dec-21	Fine	15:12	19		

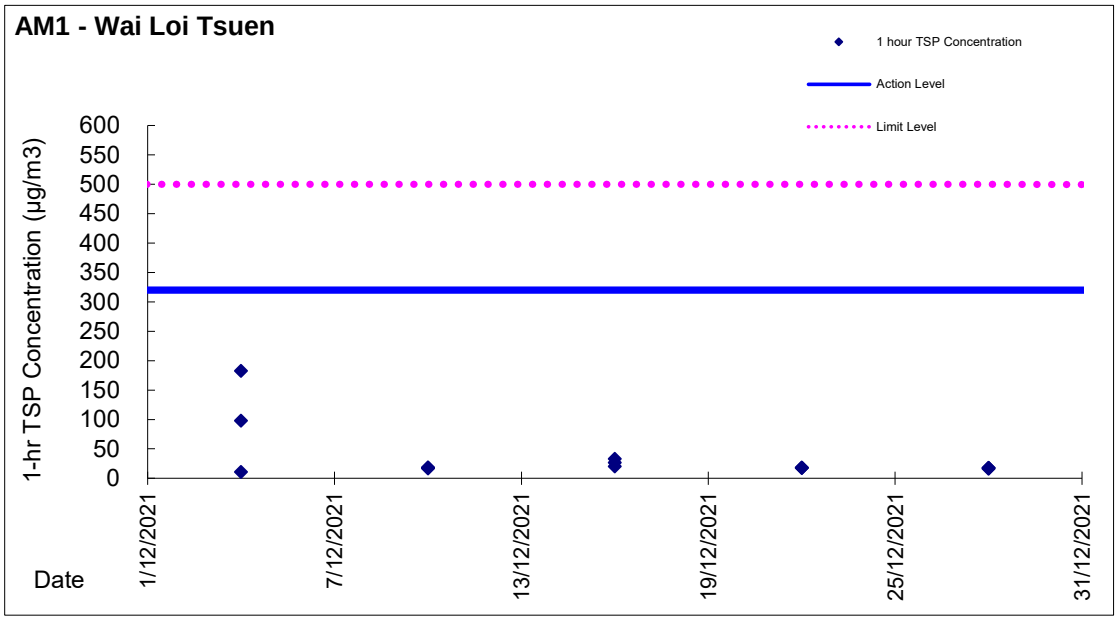
Location: AM1a - Site Boundary of the Shek Wu Hui STW (East)
Impact Monitoring Result on 24-hour TSP monitoring

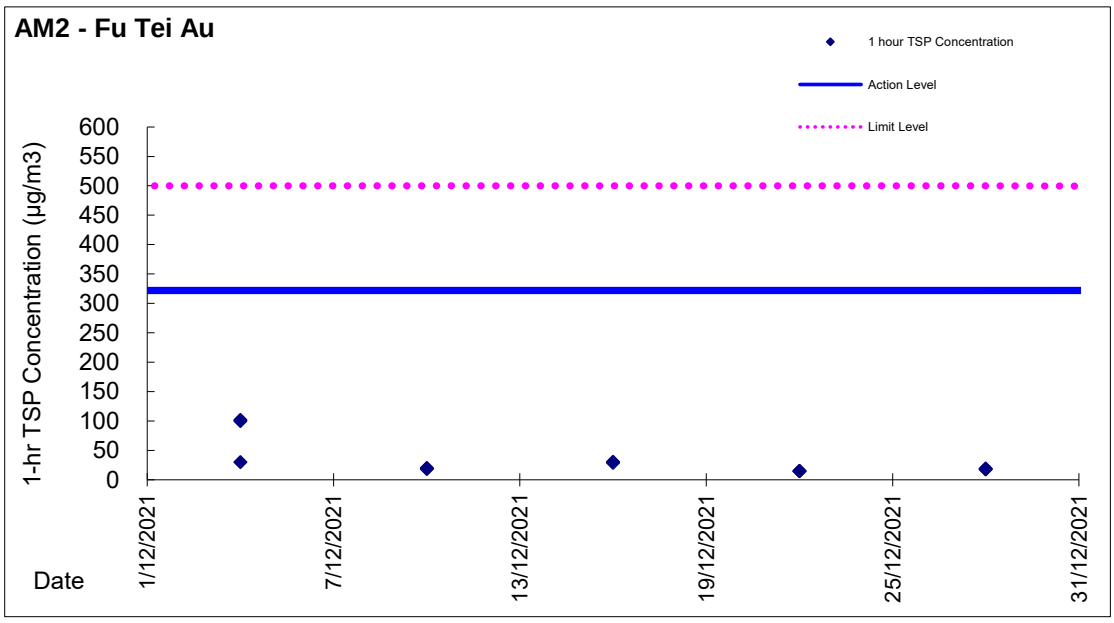
Date	Sampling Time	Weather Condition	Pressure, hPa		Temp. , °C		Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, ug/m^3	Model No.	Serial No.
			Initial	Final	Initial	Final		Initial	Final	Initial	Final		Initial, Qsi	Final, Qsf	Average				
03-Dec-21	8:00	Fine	1021.5	1022.2	18	18.1	AM1a_24hr_008377	2.6950	2.8709	17437.93	17461.93	24.00	1.26	1.26	1.26	1809	97	G3101	0401-1105
09-Dec-21	8:00	Fine	1022.3	1020.7	20.2	20.9	AM1a_24hr_008378	2.6750	2.7389	17461.93	17485.93	24.00	1.25	1.28	1.27	1822	35		
15-Dec-21	8:00	Cloudy	1016.1	1015.8	21.5	23.2	AM1a_24hr_010090	2.7615	2.8633	17485.93	17509.93	24.00	1.20	1.22	1.21	1739	59		
21-Dec-21	8:00	Cloudy	1013.5	1016.5	17.3	19.3	AM1a_24hr_010108	2.7854	2.8520	17509.93	17533.93	24.00	1.25	1.25	1.25	1804	37		
27-Dec-21	8:00	Fine	1027.1	1024.4	12	15.3	AM1a_24hr_010131	2.7873	2.8652	17533.93	17557.93	24.00	1.27	1.26	1.27	1823	43		

Location: AM2a - Site Boundary of the Shek Wu Hui STW (North)
Impact Monitoring Result on 24-hour TSP monitoring

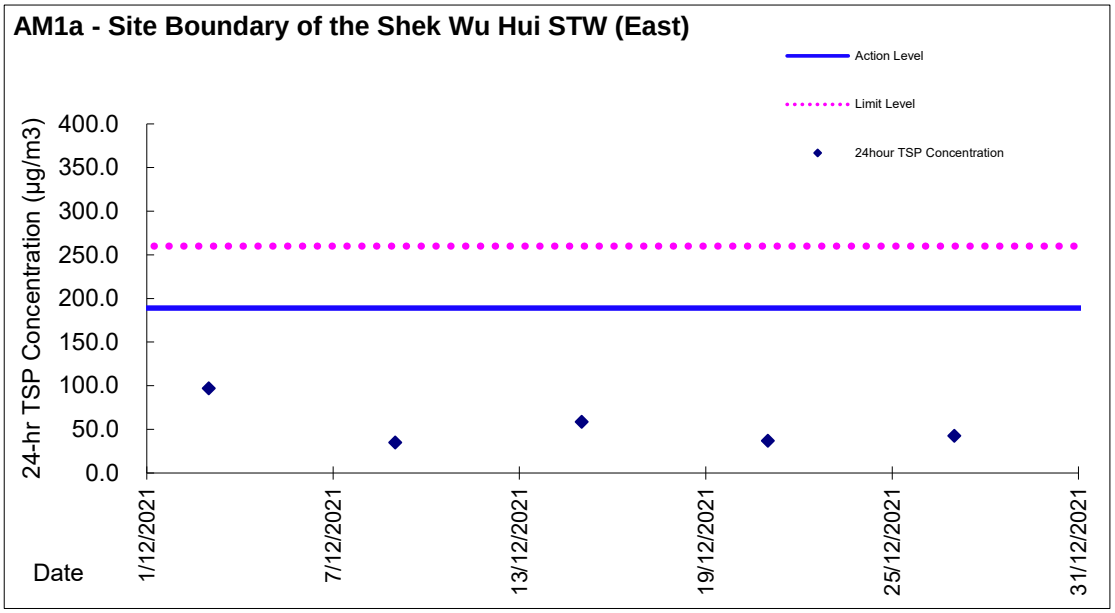
Date	Sampling Time	Weather Condition	Pressure, hPa		Temp. , °C		Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, ug/m^3	Model No.	Serial No.
			Initial	Final	Initial	Final		Initial	Final	Initial	Final		Initial, Qsi	Final, Qsf	Average				
03-Dec-21	8:00	Fine	1021.5	1022.2	18	18.1	AM2a_24hr_008379	2.6912	2.8269	17437.93	17461.93	24.00	1.28	1.31	1.29	1864	73	G3101	1096-2305
09-Dec-21	8:00	Fine	1022.3	1020.7	20.2	20.9	AM2a_24hr_010067	2.7237	2.8556	17461.93	17485.93	24.00	1.25	1.25	1.25	1798	73		
15-Dec-21	8:00	Cloudy	1016.1	1015.8	21.5	23.2	AM2a_24hr_010091	2.7587	2.8755	17485.93	17509.93	24.00	1.19	1.19	1.19	1710	68		
21-Dec-21	8:00	Cloudy	1013.5	1016.5	17.3	19.3	AM2a_24hr_010130	2.7939	2.873	17509.93	17533.93	24.00	1.19	1.19	1.19	1719	39		
27-Dec-21	8:00	Fine	1027.1	1024.4	12	15.3	AM2a_24hr_010148	2.7956	2.9604	17533.93	17557.93	24.00	1.16	1.15	1.15	1659	99		

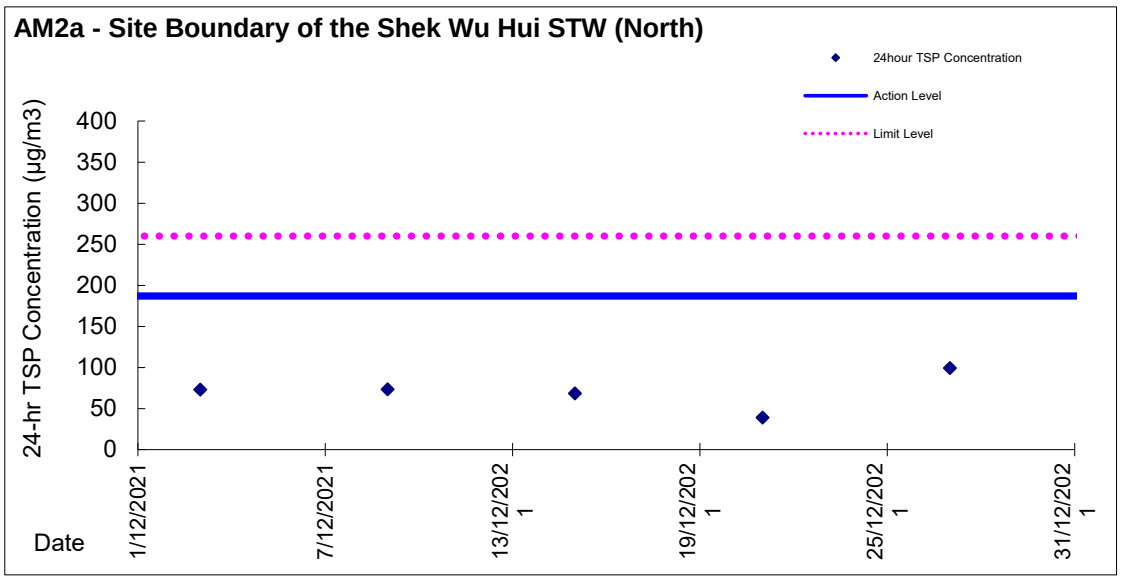
Graphic Presentation of TSP Result





Graphic Presentation of TSP Result





Appendix 5.4

Details of Ecological Monitoring Results in the Reporting Month

5.1. ECOLOGICAL MONITORING RESULTS

5.1.1. For this reporting month, the numbers of species and individuals recorded were provided in **Table 1** and the abundance of representative species were shown in **Table 2.**

Table 1 Total Bird Species and Abundance in the Reporting Month

	Number of Species	Abundance
All Avifauna	50	2293
Waterbirds	19	739

Table 2 Abundance of Representative Waterbirds in the Reporting Month

Species Name	Common Name	Chinese Name	Abundance
Egretta garzetta	Little Egret	小白鷺	114
Ardea cinerea	Grey Heron	蒼鷺	152
Ardeola bacchus	Chinese Pond Heron	池鷺	102
Phalacrocorax carbo	Great Cormorant	普通鸕鷀	109
Ardea alba	Great Egret	大白鷺	75
Bubulcus coromandus	Eastern Cattle Egret	牛背鷺	81
		Total	**633**

Analysis

5.1.2. The result of student t-tests for all waterbirds and representative waterbirds are compiled in **Table 3 and 4** respectively. Further details are provided in **Appendix 5.4b.**

Table 3 T-test Result for All Waterbirds in the Reporting Month

T-values of Data in Reporting Month			Confidence Level (Critical Value)	
			95% (-2.132)	99% (-3.747)
Abundance	Monthly	6.476	✔	✔
	Seasonal	7.253	✔	✔

Remarks:

✔ = T-value falls within the confidence level; the impact monitoring data shows no significant difference to the baseline data.

✘ = T-value falls outside the confidence level; the impact monitoring data shows significant difference to the baseline data.

Table 4 T-test Result for Representative Waterbirds in the Reporting Month

Common Name of Representative Waterbird	T-value	Confidence Level (Critical Value)		T-value	Confidence Level (Critical Value)		Overall
	Monthly	95% (-2.132)	99% (-3.747)	Seasonal	95% (-2.132)	99% (-3.747)	
Little Egret	3.063	✔	✔	2.438	✔	✔	✔
Grey Heron	4.348	✔	✔	3.195	✔	✔	✔
Chinese Pond Heron	5.879	✔	✔	5.879	✔	✔	✔
Great Cormorant	3.334	✔	✔	5.035	✔	✔	✔
Great Egret	2.920	✔	✔	3.244	✔	✔	✔
Eastern Cattle Egret	3.320	✔	✔	3.971	✔	✔	✔

Remarks:

✔ = T-value falls within the confidence level; the impact monitoring data shows no significant difference to the baseline data.

✘ = T-value falls outside the confidence level; the impact monitoring data shows significant difference to the baseline data.

* Great Cormorant (*Phalacrocorax carbo*) and Grey Heron (*Ardea cinerea*) were not recognised as representative waterbird species during wet season.

5.1.3. No Action Level and Limit Level was triggered for ecological monitoring in the reporting month.

5.1.4. Site observation in the reporting month shows that construction activities are similar to previous months. However, moderate to High level of Construction noises from the Project Site were recorded during the monitoring. Although no Action Level and Limit Level was triggered, mitigation measures such as noise barrier in green and hoarding in green around the construction site near Sheung Yue River was recommended.

5.1.5. The monitoring work will continue next month to evaluate any construction impact on waterbirds.

Observations

5.1.6. Waterbird behaviour observed during ecological monitoring are listed below:

- Flying
- Foraging
- Soaring
- Resting

5.1.7. The anthropogenic activities observed during ecological monitoring are listed in **Table 5.**

Table 5 Observations during Ecological Monitoring in the Reporting Month

Location(s)	Observations	
	Project Related	**Non-project Related**
T1 (PC1, PC2)	N/A	Human Activities such as Fishing
T2 (PC3, PC4)	Construction activities such as Sheet-piling, generator & wielding	Human Activities such as Fishing, Landscape Planting

Location(s)	Observations	
	Project Related	**Non-project Related**
	works Scaffolding, sedimentation Tank, Excavation and crane	Construction activities such as Sheet-piling, generator & wielding works Scaffolding, sedimentation Tank, Excavation and crane
PC5	Construction activities Excavation and crane	N/A
T3 (PC6, PC7)	Construction activities such as Sheet-piling	Human Activities such as Fishing Construction activities such as Excavation Sheet-piling, generator & wielding works Scaffolding

Appendix 5.5

Ecological Monitoring Results and Analysis

Summary data of the Ecological Monitoring

Scientific Names	Common Names	Chinese Names	Waterbird	Point Count Abundance	Transect Count Abundance
Nycticorax nycticorax	Black-crowned Night Heron	夜鷺	X	2	N/A
Ardeola bacchus	Chinese Pond Heron	池鷺	X	102	+++++
Bubulcus coromandus	Eastern Cattle Egret	牛背鷺	X	81	+++++
Ardea cinerea	Grey Heron	蒼鷺	X	152	+++++
Ardea alba	Great Egret	大白鷺	X	75	+++++
Egretta garzetta	Little Egret	小白鷺	X	114	+++++
Phalacrocorax carbo	Great Cormorant	普通鸕鷀	X	109	+++++
Milvus migrans	Black Kite	黑鳶	X	17	+
Amaurornis phoenicurus	White-breasted Waterhen	白胸苦惡鳥	X	2	N/A
Himantopus himantopus	Black-winged Stilt	黑翅長腳鷸	X	3	+
Tringa stagnatilis	Marsh Sandpiper	澤鷸	X	3	+
Tringa nebularia	Common Greenshank	青腳鷸	X	5	+
Tringa ochropus	Green Sandpiper	白腰草鷸	X	3	+
Actitis hypoleucos	Common Sandpiper	磯鷸	X	41	++++
Spilopelia chinensis	Spotted Dove	珠頸斑鳩		99	+++++
Centropus sinensis	Greater Coucal	褐翅鴉鵑	X	1	+
Apus pacificus	Pacific Swift	白腰雨燕		0	+
Halcyon smyrnensis	White-throated Kingfisher	白胸翡翠	X	11	+
Alcedo atthis	Common Kingfisher	普通翠鳥	X	13	++
Ceryle rudis	Pied Kingfisher	斑魚狗	X	4	++
Psittacula krameri	Rose-ringed Parakeet	紅領綠鸚鵡		11	++
Lanius schach	Long-tailed Shrike	棕背伯勞		1	+
Dicrurus macrocercus	Black Drongo	黑卷尾		2	+
Pica pica	Eurasian Magpie	喜鵲		10	+
Corvus torquatus	Collared Crow	白頸鴉	X	1	+
Corvus macrorhynchos	Large-billed Crow	大嘴烏鴉		6	+
Parus cinereus	Cinereous Tit	蒼背山雀		34	++++
Pycnonotus jocosus	Red-whiskered Bulbul	紅耳鵯		165	+++++
Pycnonotus sinensis	Chinese Bulbul	白頭鵯		138	+++++
Hirundo rustica	Barn Swallow	家燕		17	+
Cecropis daurica	Red-rumped Swallow	金腰燕		10	++
Phylloscopus inornatus	Yellow-browed Warbler	黃眉柳鶯		58	+++++

Scientific Names	Common Names	Chinese Names	Waterbird	Point Count Abundance	Transect Count Abundance
Prinia flaviventris	Yellow-bellied Prinia	黃腹鷦鶯		15	+
Prinia inornata	Plain Prinia	純色鷦鶯		34	++++
Orthotomus sutorius	Common Tailorbird	長尾縫葉鶯		74	+++++
Garrulax perspicillatus	Masked Laughingthrush	黑臉噪鶥		7	+
Zosterops japonicus	Japanese White-eye	暗綠繡眼鳥		174	+++++
Acridotheres cristatellus	Crested Myna	八哥		373	+++++
Spodiopsar cineraceus	White-cheeked Starling	灰椋鳥		1	+
Gracupica nigricollis	Black-collared Starling	黑領椋鳥		137	+++++
Copsychus saularis	Oriental Magpie Robin	鵲鴝		7	+
Muscicapa latirostris	Asian Brown Flycatcher	北灰鶲		1	+
Phoenicurus auroreus	Daurian Redstart	北紅尾鴝		6	+
Saxicola stejnegeri	Stejneger's Stonechat	黑喉石(即鳥)		4	+
Passer montanus	Eurasian Tree Sparrow	樹麻雀		12	+
Lonchura punctulata	Scaly-breasted Munia	斑文鳥		5	+++++
Motacilla alba	White Wagtail	白鶺鴒		126	+++++
Anthus richardi	Richard's Pipit	理氏鷚		2	+
Anthus godlewskii	Olive-backed Pipit	樹鷚		25	++++
Spinus spinus	Eurasian Siskin	黃雀		0	+

Remarks:

X: Waterbird ;

Transect abundance, +: <10, ++: 11-20, +++: 21-30, ++++: 31-40, +++++: >40

According to S4.7 of the approved Baseline Monitoring Report (Ecology), "waterbirds" was defined as "waterbirds and wetland-dependent species", which was referenced to Monthly Waterbird Monitoring Biannual Reports prepared by the Hong Kong Bird Watching Society (Anon, 2020).

Also, S.13.11.3.2 of NENT NDA EIA Study requires "Monitoring of Measures to Mitigate for Impacts of the Project on Wetland-dependent Fauna using the Ng Tung, Sheung Yue and Shek Sheung Rivers". Therefore, "wetland-dependent birds" should be considered as "waterbirds". As raptors and Collared Crow are "wetland-dependent species", they should be taken into consideration in data analysis and impact assessment on waterbirds.

Waterbird Ecological Monitoring Result

Total Bird Abundance from Point Count						
Survey Information				Total Bird Abundance from Point Count		
No.	Date	Time	Tide Level	Individuals Recorded	Total	Species Recorded
1	3/12/2021	10:00	H	226	525	33
		14:30	L	299		31
2	10/12/2021	15:30	H	206	386	28
		11:00	L	180		26
3	17/12/2021	10:00	H	121	359	28
		14:00	L	238		31
4	23/12/2021	13:30	H	279	521	30
		10:00	L	242		27
5	31/12/2021	9:30	H	238	502	35
		14:30	L	264		33

Remarks: H: High Tide; L: Low Tide

Total Waterbird Abundance from Point Count					
Survey Information				Total Waterbird Abundance from Point Count	
No.	Date	Time	Tide Level	Individuals Recorded	Total
1	3/12/2021	10:00	H	67	140
		14:30	L	73	
2	10/12/2021	15:30	H	49	134
		11:00	L	85	
3	17/12/2021	10:00	H	45	121
		14:00	L	76	
4	23/12/2021	13:30	H	92	154
		10:00	L	62	
5	31/12/2021	9:30	H	94	190
		14:30	L	96	
				Overall Total	**739**
				Average	**148**

Remarks: H: High Tide; L: Low Tide

T-Test Analysis for All Waterbirds

Baseline Data

Monthly Average Abundance (Dec)	71.33
Seasonal Average Abundance (Winter season)	62.15

T-Test

The following hypothesis was made and a one-tail t-test will be used to test the data collected from the monitoring:

H_0: The data collected in the reporting month falls within the normal distribution when compared to the baseline monitoring data;

H_1: The data collected does not falls within the normal distribution when compared to the baseline monitoring data.

If t-test value is **smaller** than the critical value, then rejects H_0.

For the data in the reporting month, the critical values are:

Crit. Value = -2.132 (95% Confidence Level)

Crit. Value = -3.747 (99% Confidence Level)

Analysis for All Waterbirds			Confidence Level (Critical Value)	
			95%	99%
Abundance	Monthly	6.476	✓	✓
	Seasonal	7.253	✓	✓

Remarks:

✓ = T-value falls within the confidence level; the impact monitoring data shows no significant difference to the baseline data.

✗ = T-value falls outside the confidence level; the impact monitoring data shows significant difference to the baseline data.

Abundance of Representative Waterbirds from Point Count											
Representative Species			**Recorded Abundance**							**Baseline Data**	
Species Name	**Common Name**	**Chinese Name**	**3/12/2021**	**10/12/2021**	**17/12/2021**	**23/12/2021**	**31/12/2021**	**Total**	**Average**	**Average (Dec)**	**Avg (Winter)**
Egretta garzetta	Little Egret	小白鷺	22	22	14	22	34	114	23	13	15
Ardea cinerea	Grey Heron	蒼鷺	20	35	18	31	48	152	30	17	13
Ardeola bacchus	Chinese Pond Heron	池鷺	19	28	17	19	19	102	20	9	9
Phalacrocorax carbo	Great Cormorant	普通鸕鷀	31	13	23	23	19	109	22	12	7
Ardea alba	Great Egret	大白鷺	14	7	10	21	23	75	15	6	5
Bubulcus coromandus	Eastern Cattle Egret	牛背鷺	11	7	21	23	19	81	16	6	4

T-test Analysis for Representative Waterbirds from Point Count

The following hypothesis was made and a one-tail t-test will be used to test the data collected from the monitoring:

H_0: The data collected in the reporting month falls within the normal distribution when compared to the baseline monitoring data;

H_1: The data collected does not falls within the normal distribution when compared to the baseline monitoring data.

If t-test value is **smaller** than the critical value, then rejects H_0.

For the data in the reporting month, the critical values are:

Crit. Value = -2.132 (95% Confidence Level)

Crit. Value = -3.747 (99% Confidence Level)

Common Name of Representative Waterbird	T-value	Confidence Level (Critical Value)		T-value	Confidence Level (Critical Value)		Overall
	Monthly	95%	99%	Seasonal	95%	99%	
Little Egret	3.063	✓	✓	2.438	✓	✓	✓
Grey Heron	4.348	✓	✓	3.195	✓	✓	✓
Chinese Pond Heron	5.879	✓	✓	5.879	✓	✓	✓
Great Cormorant	3.334	✓	✓	5.035	✓	✓	✓
Great Egret	2.920	✓	✓	3.244	✓	✓	✓
Eastern Cattle Egret	3.320	✓	✓	3.971	✓	✓	✓

Remarks:

✔ = T-value falls within the confidence level; the impact monitoring data shows no significant difference to the baseline data.

✘ = T-value falls outside the confidence level; the impact monitoring data shows significant difference to the baseline data.

* Great Cormorant (*Phalacrocorax carbo*) and Grey Heron (*Ardea cinerea*) were not recognised as representative waterbird species during wet season.

Appendix 5.6

Photo Record of Ecological Monitoring

Conditions of Rivers

	
Sheung Yue River – Survey Point 6 (Taken on 3 Dec 2021)	**Sheung Yue River (Taken on 10 Dec 2021)**
	
Shek Sheung River (Taken on 17 Dec 2021)	**Shek Sheung River (Taken on 23 Dec 2021)**

Human Activities & Site Conditions

		
Construction Activities (Ng Tung River) **(Project-related, taken on 3 Dec 2021)**	**Construction Activities (Shek Sheung River)** **(Project-related, taken on 10 Dec 2021)**	**Construction Activities (Shek Sheung River)** **(Project-related, taken on 17 Dec 2021)**
		
Construction Activities (Sheung Yue River) **(Project-related, taken on 10 Dec 2021)**	**Human Activities (Ng Tung River)** **(Non-project-related, taken on 3 Dec 2021)**	**Human Activities (Ng Tung River)** **(Non-project-related, taken on 3 Dec 2021)**

		
Construction Activities (Ng Tung River) **(Non-Project-related, taken on 3 Dec 2021)**	**Human Activities (Ng Tung River)** **(Non-project-related, taken on 3 Dec 2021)**	**Construction Activities (Sheung Yue River)** **(Non-project-related, taken on 10 Dec 2021)**
		
Human Activities (Sheung Yue River) **(Non-project-related, taken on 10 Dec 2021)**	**Construction Activities (Sheung Yue River)** **(Non-project-related, taken on 10 Dec 2021)**	**Human Activities (Ng Tung River)** **(Non-project-related, taken on 17 Dec 2021)**

		
Human Activities (Ng Tung River) **(Non-project-related, taken on 23 Dec 2021)**	**Construction Activities (Sheung Yue River)** **(Non-project-related, taken on 31 Dec 2021)**	

Waterbird Species

		
Great Cormorant	**Eastern Cattle Egret**	**White-throated Kingfisher**
		
Great Egret	**Eastern Cattle Egret**	**Grey Heron**

Appendix 5.7

Monthly Summary Waste Flow Table

Name of Department: DSD

Contract No. DC/2018/06

Monthly Summary Waste Flow Table for 2021

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m3)
Jan	10.034	0.000	0.000	8.257	1.777	0.606	0.000	0.000	0.002	0.000	0.038
Feb	3.703	0.000	0.000	2.871	0.833	0.071	2.120	0.000	0.000	0.000	0.024
Mar	4.644	0.000	0.000	2.190	2.454	0.037	0.000	0.000	0.006	0.000	0.044
Apr	0.211	0.000	0.023	0.000	0.188	0.167	0.000	0.000	0.008	0.000	0.042
May	0.557	0.000	0.218	0.000	0.340	0.190	0.001	0.002	0.008	0.000	0.081
Jun	0.370	0.000	0.023	0.000	0.348	0.119	8.210	0.000	0.000	0.000	0.069
Sub-total	19.519	0.000	0.263	13.317	5.939	1.189	10.331	0.002	0.023	0.000	0.299
Jul	0.592	0.000	0.000	0.000	0.592	0.096	0.000	0.000	0.010	0.000	0.046
Aug	0.567	0.000	0.000	0.000	0.567	0.368	0.002	0.017	0.008	0.000	0.066
Sep	0.184	0.000	0.000	0.000	0.184	0.589	0.000	0.000	0.000	0.000	0.037
Oct	0.230	0.000	0.000	0.000	0.230	0.205	0.001	0.003	0.008	0.000	0.055
Nov	0.685	0.000	0.000	0.000	0.685	0.844	0.000	0.009	0.000	0.000	0.116
Dec	1.612	0.000	0.000	0.000	1.612	0.210	0.000	0.007	0.000	0.000	0.132
Total	23.389	0.000	0.263	13.317	9.809	3.500	10.334	0.038	0.049	0.000	0.751

Notes:

1. Assume the density of soil fill is 2 ton/m3.
2. Assume the density of rock and broken concrete is 2.5 ton/m3.
3. Assume the density of general refuse is 0.9 ton/m3.
4. Assume density of waste oil is assued to be 0.8 kg/L.
5. The inert C&D materials except slurry and bentonite are disposed at Tuen Mun 38.
6. The slurry and bentonite are disposed at Tseung Kwun O 137.
7. The non-inert C&D wastes are disposed at NENT.

Name of Department: DSD

Contract No. DC/2018/07

Monthly Summary Waste Flow Table for 2021

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated (in '000m^3)	Hard Rock and Large Broken Concrete (in '000m^3)	Reused in the Contract (in '000m^3)	Reused in other Projects (in '000m^3)	Disposed as Public Fill (in '000m^3)	Imported Fill (in '000m^3)	Metals (in '000kg)	Paper/ cardboard packaging (in '000kg)	Plastics (in '000kg)	Chemical Waste (in '000kg)	Others, e.g. general refuse (in '000m3)
Jan	0.836	0.000	0.000	0.000	0.836	0.301	21.25	0.000	0.002	0.000	0.006
Feb	0.911	0.000	0.000	0.000	0.911	0.376	39.35	0.000	0.000	0.000	0.007
Mar	0.954	0.000	0.000	0.000	0.954	0.202	0.00	0.000	0.003	0.000	0.016
Apr	0.550	0.000	0.000	0.046	0.504	0.000	0.00	0.000	0.008	0.000	0.009
May	1.368	0.000	0.000	0.149	1.220	0.081	0.00	0.000	0.008	0.000	0.012
Jun	0.670	0.000	0.000	0.074	0.596	0.000	0.00	0.010	0.000	0.000	0.012
Sub-total	5.290	0.000	0.000	0.269	5.021	0.961	60.60	0.010	0.020	0.000	0.062
Jul	2.818	0.000	0.000	0.058	2.760	0.000	0.00	0.000	0.010	0.000	0.011
Aug	5.061	0.000	0.000	0.000	5.061	0.021	27.13	0.013	0.014	0.000	0.010
Sep	4.093	0.000	0.000	0.000	4.093	0.152	38.40	0.000	0.000	0.000	0.009
Oct	1.653	0.000	0.000	0.305	1.349	0.023	0.000	0.006	0.008	0.000	0.014
Nov	4.843	0.000	0.000	1.738	3.105	0.000	1.51	0.002	0.000	0.000	0.006
Dec	3.586	0.000	0.000	0.410	3.175	0.000	0.00	0.006	0.000	0.000	0.014
Total	27.343	0.000	0.000	2.779	24.564	1.158	127.64	0.036	0.052	0.000	0.127

Notes:

1. Assume the density of soil fill and special waste (i.e. sediment from DSD sedimentation tank) is 2 ton/m3.
2. Assume the density of rock and broken concrete is 2.5 ton/m3
3. Assume the density of general refuse is 0.9 ton/m3
4. Density of waste oil is assued to be 0.8 kg/L. Chemical waste includes waste oil.
5. The inert C&D materials except slurry and bentonite are disposed at Tuen Mun 38
6. The slurry and bentonite are disposed at Tseung Kwun O 137
7. The non-inert C&D wastes, including general refuse & special waste (i.e. sediment from DSD sedimentation tank) are disposed at NENT

EM&A Monthly Reporting Template (cut-off at the end of each month)

Name of Department: ~~ArchSD/CEDD~~/DSD/~~EMSD/HyD/WSD~~ Contract No.: DE/2018/03

Monthly Summary Waste Flow Table for 2021 (year)

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
Jan	9.53 T	0	0	0	9.53 T	0	0	0	0	0	0
Feb	3.47T	0	0	0	3.47 T	0	0	0	0	0	0
Mar	14.79T	0	0	0	14.79T	0	0	0	0	0	0
Apr	7.21T	0	0	0	7.21T	0	0	0	0	0	0
May	11.34T	0	0	0	11.34T	0	0	0	0	0	0
June	328.08T	0	0	0	328.08T	0	0	0	0	0	0
Sub-total	374.42T	0	0	0	374.42T	0	0	0	0	0	0
July	579.34T	0	0	0	579.34T	0	0	0.131	0.007	0	0
Aug	64.14T	0	0	0	64.14T	0	0	0.11	0	0	6.13T
Sept	39.42T	0	0	0	39.42T	0	0	0	0	0	0
Oct	0	0	0	0	0	0	0	0	0	0	0
Nov	98.65T	0	0	0	98.65T	0	16.4	0.11	0.005	0	0
Dec	93.19T	0	0	0	93.19T	0	0	0	0	0	6.1T
Total	1249.16T	0	0	0	1249.16T	0	16.4	0.351	0.012	0	12.23T

Name of Department: DSD Contract No.: DE/2018/04

Monthly Summary Waste Flow Table for 2021 (year)

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse
	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000 kg)
Jan	230.16	0	0	0	230.16	0	0	0	0	0	1.54
Feb	175.98	0	100	0	75.98	0	0	0	0	0	3.63
Mar	11.98	0	0	0	11.98	0	0	0	0	0	1.35
Apr	0	0	0	0	0	0	0	0	0	0	1.48
May	0	0	0	0	0	0	0	0	0	0	3.25
June	0	0	0	0	0	0	0	0	0	0	2.01
Sub-total	418.12	0	100	0	318.12	0	0	0	0	0	13.26
July	0	0	0	0	0	0	0	0	0	0	4.21
Aug	0	0	0	0	0	0	0	0	0	0	1.09
Sept	4.24	0	0	0	4.24	0	0	0	0	0	0
Oct	0	0	0	0	0	0	0	0	0	0	0
Nov	0	0	0	0	0	0	0	0	0	0	3.06
Dec	0	0	0	0	0	0	0	0	0	0	0
Total	422.36	0	100	0	322.36	0	0	0	0	0	21.62

Appendix 6.1

Event and Action Plans

Event and Action Plan

Event and Action Plan for Construction Noise

Event	Action			
	ET	IEC	ER	Contractor
Action Level exceeded	1. Notify IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the Contractor and formulate remedial measures; 5. Increase monitoring frequency to check mitigation effectiveness;	1. Review the analysed results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures.	1. Submit noise mitigation proposals to IEC; 2. Implement noise mitigation proposals.
Limit Level exceeded	1. Identify source; 2. Inform IEC, ER, EPD and Contractor; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Inform IEC, ER and EPD the causes and actions taken for the exceedances; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractors remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Event and Action Plan for Construction Dust Monitoring

Event	Action			
	ET	IEC	ER	Contractor
Action Level				
Action level being exceeded by one sampling	1. Identify source, investigate the causes of complaint and propose remedial measures; 2. Inform IEC and ER; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method.	1. Notify the Contractor.	1. Rectify any unacceptable practices. 2. Amend working methods agreed with the ER as appropriate.
Action level being exceeded by two or more consecutive sampling	1. Identify sources. 2. Inform the IEC and ER. 3. Advise the ER on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings. 5. Increase monitoring frequency to daily. 6. Discuss with the IEC, ER and Contractor on remedial action required. 7. If exceedance continues, arrange meeting with the IEC, Contractor and ER. 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET on the effectiveness of the proposed remedial measures; 5. Supervise Implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Submit proposals for remedial actions to IEC within three working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate.
Limit Level				
Limit level being exceeded by one sampling	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform Contractor, IEC, ER, and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; 5. Supervise implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within three working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate.

Event	Action			
	ET	IEC	ER	Contractor
	ER informed of the results.			
Limit level being exceeded by two or more consecutive sampling	1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within three working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Appendix 6.2

Summary of Notification of Exceedance

Summary for Notification of Exceedance

Reporting Month: December

Ref No.	Date	Location	Parameters (Unit)	Measured	Action Level	Limit Level	Follow-up Action
-	-	-	-	-	-	-	-

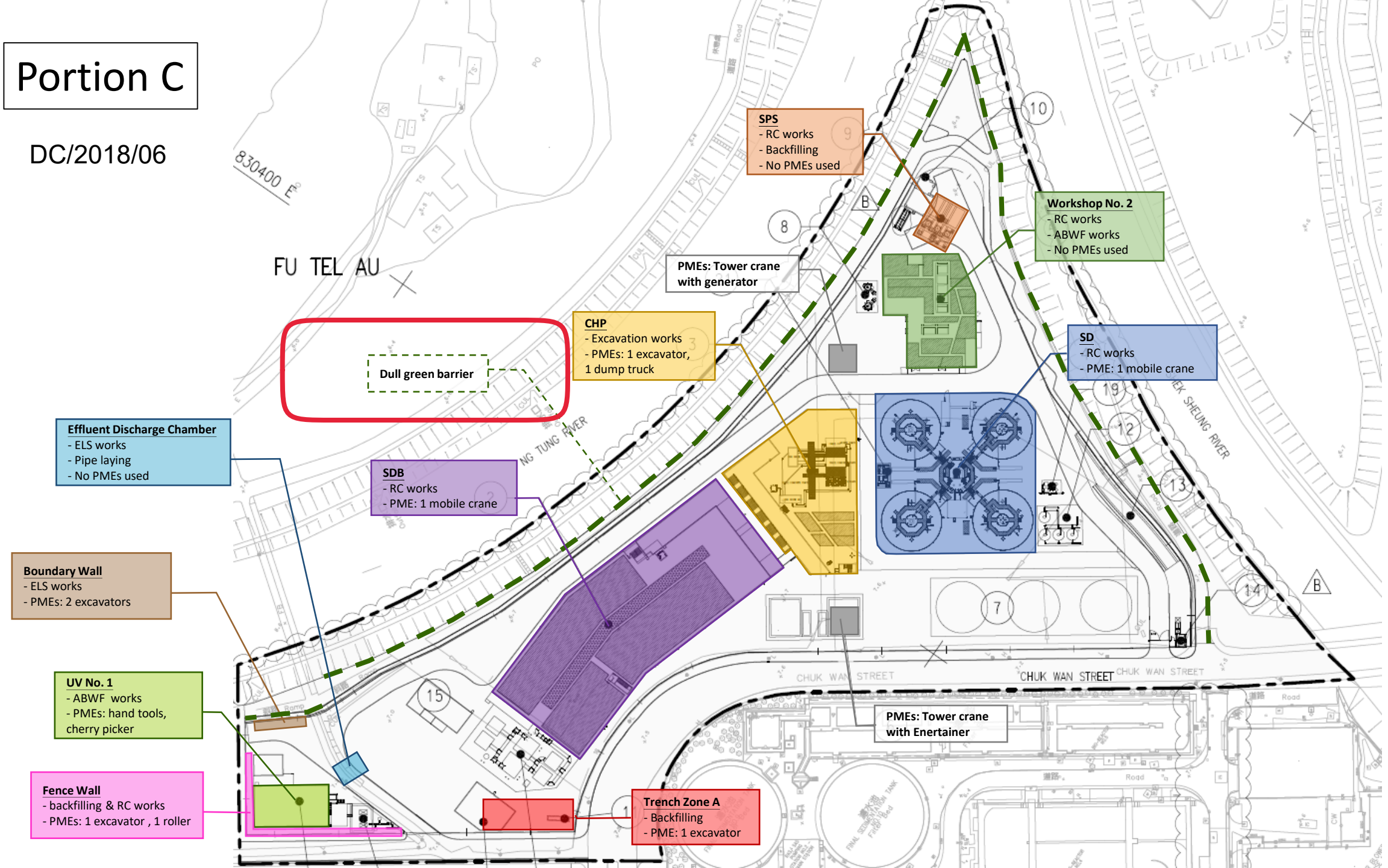
Ref. No.	Date	Time	Location	Construction Noise Level	Parameter	Action Level	Limit Level	Follow-up action
-	-	-	-	-	-	-	-	-

Appendix 7.1

Details and Conditions of Site Barrier

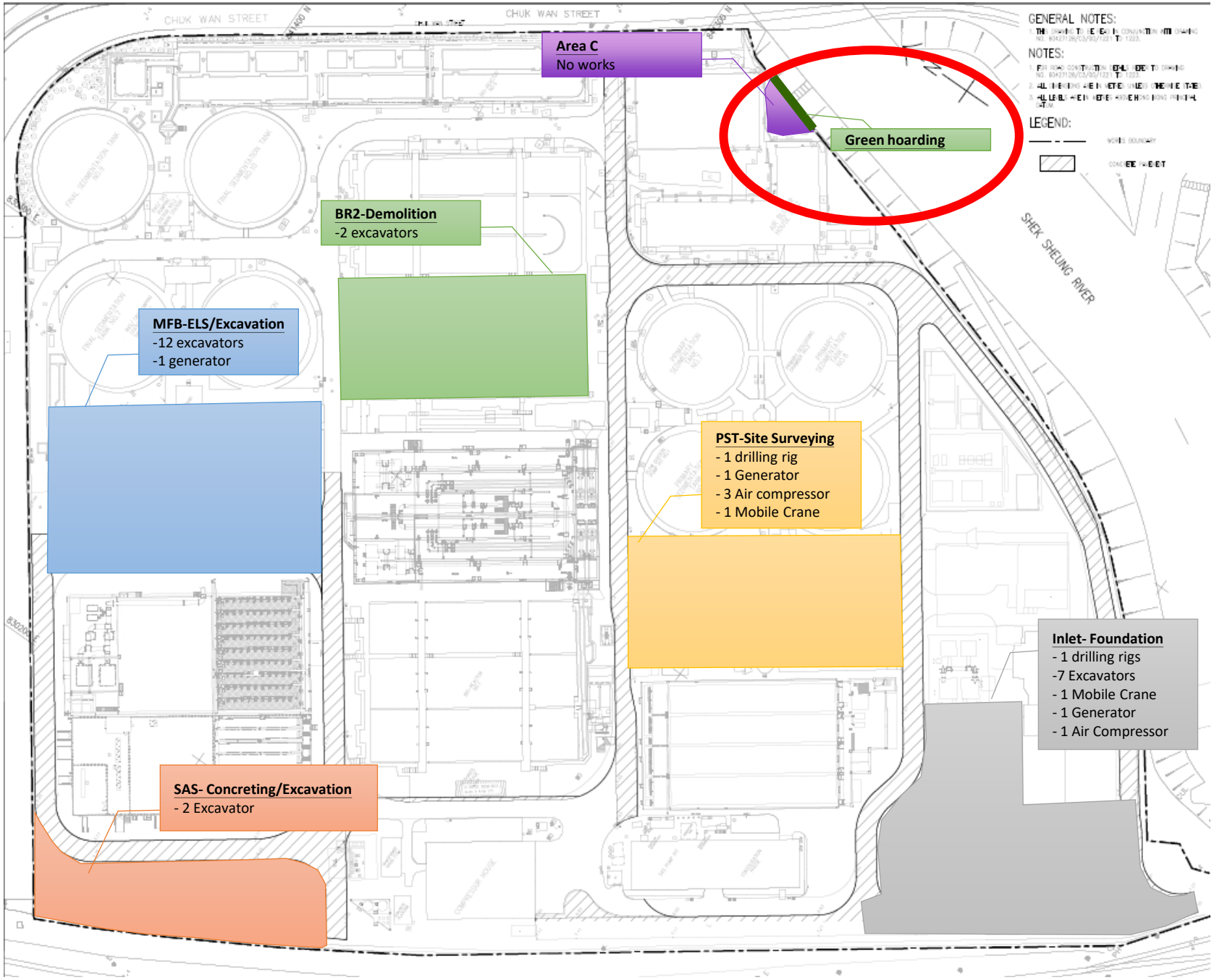
Portion C

DC/2018/06



Portion B

DC/2018/07



Project Management Initials: Designer: KYTM Checked: TLST Approved: ELIM ISO A1 594mm x 841mm

DE/2018/03

841600 N

841400 N

830400 E

830200 E

FU TEL AU

SHEUNG SHUI HEUNG

SHEUNG SHUI SLAUGHTER HOUSE

SHEK SHEUNG RIVER

NG TUNG RIVER

PO WAN ROAD

CHUK WAN STREET

Solid Dull Green Barrer

MTR (EAST RAIL LINE)

NOTES:

1. DRAWINGS ARE NOT TO BE SCALED. ALL DIMENSIONS SHALL BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF CONSTRUCRION
2. ALL LEVELS SHOWN ARE IN METERS AND REFER TO THE PRINCIPAL DATAM.
3. ALL CO-ORDINATES ARE IN ACCORDANCE WITH H.K. (1980) GEODETIC DATAM.
4. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
5. ALL DETAILS SHOWING THE EXISTING CONDITIONS OF THE SITE INCLUDING ALL GROUND, STRUCTURES, ROAD, SERVICES, ETC. ARE INDICATIVE ONLY.
6. THE LOCATION, ORIENTATIONS, ALIGNMENT, SIZES, LEVELS AND DETAILS OF THE SEWAGE AND DRAINAGE WORKS, INCLUDING THE PIPES CONNECTION, MANHOLES, EXISTING PIPES TO BE CONNECTED, EXISTING MANHOLES TO BE MODIFIED, THE CONSTRUCTION METHOD SHOWN ON THIS SET OF DRAWINGS ARE INDICATIVE AND FOR TENDER PURPOSE ONLY.
7. EXACT TIE-IN WITH EXISTING FEATURES SHALL BE AGREED WITH THE SUPERVISOR.

LEGEND:

	SITE BOUNDARY
1	UV SYSTEM NO. 1 & EFFLUENT PUMPING STATION NO. 1
2	SLUDGE DEWATERING BUILDING
3	COMBINED HEAT & POWER BUILDING
4	SLUDGE DIGESTER
5	WORKSHOP NO. 2
6	THERMAL HYDROLYSIS PRETREATMENT FACILITIES
7	BIOGAS HOLDING TANKS
8	WASTE GAS BURNER
9	SEWAGE PUMPING STATION
10	FERRIC CHLORIDE DOSING FACILITIES
11	WATER METER CABINET
12	H2S REMOVAL SYSTEM
13	UNDERPASS (PART)
14	GUARD HOUSE
15	TRANSFORMER AND SWITCHROOM
16	FIRE HYDRANT AND BOOSTER PUMP ROOM
18	DEODORIZATION SYSTEM NO. 11
19	DEODORIZATION SYSTEM NO. 12
20	PLANT SERVICES WATER SYSTEM
21	THP COOLERS PUMPING STATION
22	SIDESTREAM TREATMENT FACILITIES
23	SURPLUS ACTIVATED SLUDGE PUMPING STATION
24	EXISTING CONSOLIDATION HOUSE

AECOM

PROJECT 項目

SHEK WU HUI EFFLUENT POLISHING PLANT

CONTRACT TITLE
SHEK WU HUI EFFLUENT POLISHING PLANT - MAIN WORKS STAGE 1 - SIDESTREAM TREATMENT FACILITIES AND E&M WORKS FOR SLUDGE TREATMENT FACILITIES

CLIENT 業主

渠務署 Drainage Services Department

CONSULTANT 工程顧問公司

AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS 分判工程顧問公司

ISSUE/REVISION 修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 核核
-	MAR. 19	TENDER DRAWING	TLST

STATUS 階段

SCALE 比例
A1 1 : 1000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN 索引圖

PROJECT NO. 項目編號
60427128

CONTRACT NO. 合約編號
DE/2018/03

SHEET TITLE 圖紙名稱
SHEK WU HUI EFFLUENT POLISHING PLANT GENERAL LAYOUT PLAN

SHEET NUMBER 圖紙編號
60427128/C2/00/1001

Plot File by: GuoX 26/03/2019
PATH: P:\PROJECTS\60427128\Drawing\Contract\C2\1000\C2_00_1001.dwg

Details & conditions of site barrier

DC/2018/06
 
The site barrier next to Ng Tung River is still under modification and will be kept in review.

DC/2018/07

The site barrier next to Shek Sheung River (Area C) is completed

DE/2018/03

The site barrier next to Shek Sheung River (Sidestream) is completed

Appendix 7.2

Dust and Noise Mitigation Measures

Implementation of dust and noise mitigation measures

Dust suppression measures	
	
The stockpile is covered properly with tarpaulin.	Water spraying method is adopted for minimizing dust generation.

Noise mitigation measures
 
The breaking tips are covered with acoustic canvas

Appendix 8.1

Complaint Log

Appendix 8.1 Environmental Complaints Log

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
1	18 March 2020	EPD	Expansion Site of SWHSTP (Portion C)	Water contamination	Muddy water was suspected to be discharged from the expansion site of SWHSTP to Shek Sheung River, manholes and foul drains nearby The investigation and mitigation measures included - Employed suction truck and dump truck to clear the silt and mud at Shek Sheung River - Arranged to repair the wastewater treatment system - Installed additional sedimentation tanks and wastewater treatment system to increase the on-site treatment capacity - Clean the slurry sediment released from the outlet regularly by suction trucks - Avoid damage of underground drains and pipes caused by existing construction works - Avoid illegal discharge from the Site into foul drains and manholes	Closed
2	19 February 2021	EPD	SWHEPP	Odour nuisance	Significant odour nuisance was suspected to be emitted from the construction activities of SWHEPP The investigation and mitigation measures included - Ensured only PMEs with valid NRMM label were used on-site - Conducted regular visual checking against emission quality of exhaust pipe of equipment by using the Ringlemann Chart - Used ULSD for diesel-powered equipment - Provided water spraying and water sprinklers system for haul road access and demolition works - Used battery powered solution to provide power to the tower crane - Provided cover for all rubbish bins on-site - Separated general refuse from construction waste	Closed

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
3	9 August 2021	EPD	SWHEPP	Air Quality	**Air nuisance was suspected to be originated from the construction activities of SWHEPP** **The investigation and mitigation measures included** - **Ensured only PMEs with valid NRMM label were used on-site** - **Conducted regular visual checking against emission quality of exhaust pipe of equipment by using the Ringlemann Chart** - **Used ULSD for diesel-powered equipment** - **Used battery powered solution to provide power to the tower crane** - **Carried out plant maintenance in a timely manner**	**Closed**

Appendix 9.1

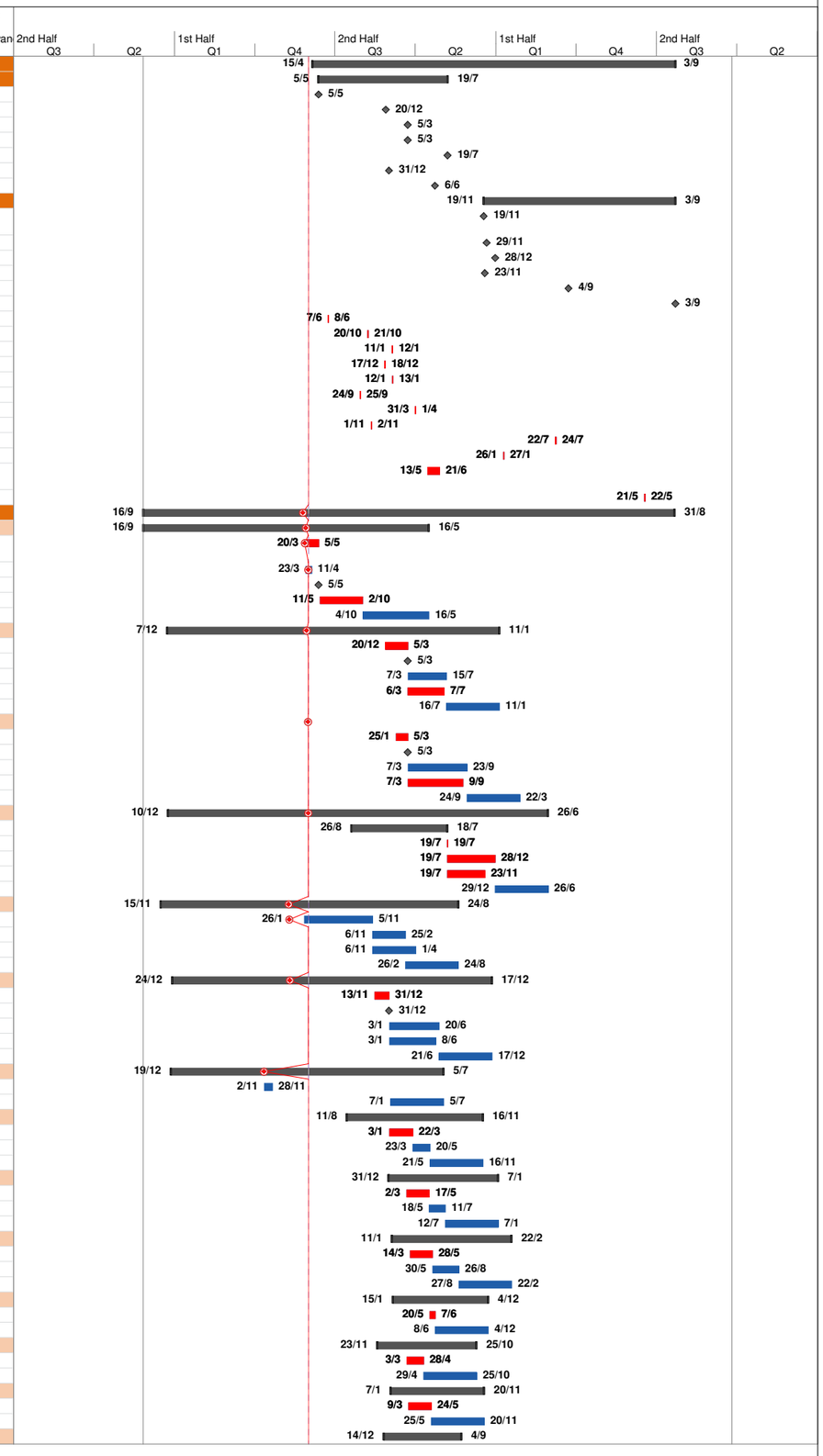
Construction Programme of Individual Contracts

Contract No.: DC/2018/06
Contract Title: Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
- Civil Works for Sludge Treatment Facilities and 132kV Primary Substation

Updated Programme (Status Date: 31/07/2021)

群利－俊和聯營體
KL－CW JV

ID	Activity ID	KD	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Duration	Start	Finish	Actual Start	Actual Finish	Total Slack	Predecessors	Successors	% Comple	Time Risk Allowan
34	**PD-00000**	*	**Planned Completion - Key Date (cal. day)**			**1238 days**	**Thu 15/4/21**	**Tue 3/9/24**	**NA**	**NA**	**-55 days**			**0%**	
35	**PKD-00000**	*	**Planned Completion - Key Dates**			**440 days**	**Wed 5/5/21**	**Tue 19/7/22**	**NA**	**NA**	**-21 days**			**0%**	
36	PKD-01000	KD1A	KD1A			0 days	Wed 5/5/21	Wed 5/5/21	NA	NA	-17 days	250FF		0%	
37	PKD-02000	KD2A	KD2A			0 days	Mon 20/12/21	Mon 20/12/21	NA	NA	-96 days	556FF,559FF		0%	
38	PKD-03000	KD3A	KD3A			0 days	Sat 5/3/22	Sat 5/3/22	NA	NA	-87 days	272FF		0%	
39	PKD-04000	KD3B	KD3B			0 days	Sat 5/3/22	Sat 5/3/22	NA	NA	-99 days	295FF		0%	
40	PKD-05000	KD3C	KD3C			0 days	Tue 19/7/22	Tue 19/7/22	NA	NA	-188 days	315FF		0%	
41	PKD-06000	KD3D	KD3D			0 days	Fri 31/12/21	Fri 31/12/21	NA	NA	-118 days	347FF		0%	
42	PKD-07000	KD3E	KD3E			0 days	Mon 6/6/22	Mon 6/6/22	NA	NA	-88 days	362FF,369FF,376FF,383FI		0%	
43	**PCD-00000**	*	**Planned Completion - Section of the Works (cal. day)**			**522 days**	**Sat 19/11/22**	**Tue 3/9/24**	**NA**	**NA**	**-356 days**			**0%**	
44	PCD-01000	SW1	Section 1 of Works			0 days	Sat 19/11/22	Sat 19/11/22	NA	NA	-356 days	447FF,483FF,491FF,510FI		0%	
45	PCD-02000	SW2	Section 2 of Works			0 days	Tue 29/11/22	Tue 29/11/22	NA	NA	144 days	561FF,578FF		0%	
46	PCD-03000	SW3	Section 3 of Works			0 days	Wed 28/12/22	Wed 28/12/22	NA	NA	-23 days	171FF,317FF,331FF,349FI	526	0%	
47	PCD-04000	SW4	Section 4 of Works			0 days	Wed 23/11/22	Wed 23/11/22	NA	NA	-172 days	390FF,396FF,401FF,448FI		0%	
48	PCD-05000	SW5	Section 5 of Works			0 days	Mon 4/9/23	Mon 4/9/23	NA	NA	0 days	252FF,277FF,299FF,319FI	49,50	0%	
49	PCD-06000	DLP	Defect Liability Period			365 days	Tue 5/9/23	Tue 3/9/24	NA	NA	141 days	48		0%	
54	IWKD1A-01020	KD1A	Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Mon 7/6/21	Tue 8/6/21	NA	NA	-43 days	53		0%	
60	IWKD2A-01020	KD2A	Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Wed 20/10/21	Thu 21/10/21	NA	NA	-43 days	59		0%	
66	IWKD3A-01020	KD3A	Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Tue 11/1/22	Wed 12/1/22	NA	NA	-26 days	65		0%	
72	IWKD3B-01020	KD3B	Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Fri 17/12/21	Sat 18/12/21	NA	NA	-16 days	71		0%	
77	IWKD3C-01020	KD3C	Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Wed 12/1/22	Thu 13/1/22	NA	NA	-37 days	76		0%	
82	IWKD3D-01020	KD3D	Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Fri 24/9/21	Sat 25/9/21	NA	NA	-37 days	81		0%	
87	IWKD3E-01020	KD3E	Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Thu 31/3/22	Fri 1/4/22	NA	NA	-37 days	86		0%	
92	IWSW1-01020	SW1	Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Mon 1/11/21	Tue 2/11/21	NA	NA	-43 days	91		0%	
98	IWSW2-01020	SW2	Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Sat 22/7/23	Mon 24/7/23	NA	NA	-43 days	97		0%	
104	IWSW3-01020	SW3	Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Thu 26/1/23	Fri 27/1/23	NA	NA	-43 days	103		0%	
109	IWSW4-01010	SW4	Delay and Disruption of Works before Mar 2021	257, (69), (92), (112), (165)		33 days	Fri 13/5/22	Tue 21/6/22	NA	NA	-43 days	113	110	0%	
116	IWSW5-01020	SW5	Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Tue 21/5/24	Wed 22/5/24	NA	NA	-43 days	115		0%	
215	**CWPC-00000**	*	**Construction Works of Portion C of the Site**			**1463 days**	**Mon 16/9/19**	**Sat 31/8/24**	**Mon 16/9/19**	**NA**	**0 days**			**18%**	
216	**CUV1-00000**	*	**UV System No. 1 & Effluent Pumping Station No. 1 (1)**			**787 days**	**Mon 16/9/19**	**Mon 16/5/22**	**Mon 16/9/19**	**NA**	**389 days**			**61%**	
247	CUV1-09041	KD1A	Walls, Slabs and staircase Construction @+7.4mPD to 16.4mPD [Additional SP1-3 puddle (DN100 x 2 & DN80)		(108), (146), (148), (179), (182)	35 days	Sat 20/3/21	Wed 5/5/21	Sat 20/3/21	NA	-17 days	244	250,251,249	0%	
248	CUV1-10000	KD1A	Construction of Switch room			20 days	Tue 23/3/21	Sun 11/4/21	Tue 23/3/21	NA	3 days			50%	
250	CUV1-11000	**KD1A**	**Allow access to Contarctor DE/2018/03 for E&M Installation**			**0 days**	**Wed 5/5/21**	**Wed 5/5/21**	**NA**	**NA**	**-17 days**	**247**	**36FF**	**0%**	
251	CUV1-12000	SW1	ABWF Works & BS Works & Apply Internal Anti-corrosion Protective Lining		(95)	120 days	Tue 11/5/21	Sat 2/10/21	NA	NA	-20 days	208,135,247	252,44FF	0%	
252	CUV1-13000	SW5	Surrounding Site formation works and road works			180 days	Mon 4/10/21	Mon 16/5/22	NA	NA	389 days	251	48FF	0%	
253	**CSDC-00000**	*	**Sludge Digesters and Distribution Chamber (4)**			**916 days**	**Sat 7/12/19**	**Wed 11/1/23**	**Sat 7/12/19**	**NA**	**191 days**			**36%**	
270	CSDC-11050	KD3A	Construction of Roof Slab			60 days	Mon 20/12/21	Sat 5/3/22	NA	NA	-87 days	269	272,275,273,274,	0%	
272	CSDC-12000	**KD3A**	**Allow access to Contarctor DE/2018/03 for E&M Installation**			**0 days**	**Sat 5/3/22**	**Sat 5/3/22**	**NA**	**NA**	**-87 days**	**270**	**38FF**	**0%**	
275	CSDC-15000	SW3	ABWF Works & BS Works		(173)	105 days	Mon 7/3/22	Fri 15/7/22	NA	NA	114 days	208,135,270	277	0%	
276	CSDC-15500	SW4	Surrounding sewerage, utility and process pipe works			124 days	Sun 6/3/22	Thu 7/7/22	NA	NA	-70 days	270	47FF	0%	
277	CSDC-16000	SW5	Surrounding Site formation works and road works			180 days	Sat 16/7/22	Wed 11/1/23	NA	NA	236 days	275	48FF	0%	
278	**CSDB-00000**	*	**Sludge Dewatering Building (2)**			**875 days**	**Tue 26/11/19**	**Wed 9/11/22**	**Tue 26/11/19**	**NA**	**242 days**			**39%**	
294	CSDB-11040	KD3B	Roof Construction @ +25.65mPD			32 days	Tue 25/1/22	Sat 5/3/22	NA	NA	-119 days	293	416,295,387,298,	0%	
295	CSDB-12000	**KD3B**	**Allow access to Contarctor DE/2018/03 for E&M Installation**			**0 days**	**Sat 5/3/22**	**Sat 5/3/22**	**NA**	**NA**	**-99 days**	**294**	**39FF**	**0%**	
297	CSDB-14000	SW3	ABWF Works & BS Works & Apply Internal Anti-corrosion Protective Lining		(95), (173)	164 days	Mon 7/3/22	Fri 23/9/22	NA	NA	55 days	290,208,135	299	0%	
298	CSDB-14500	SW4	Surrounding sewerage, utility and process pipe works			153 days	Mon 7/3/22	Fri 9/9/22	NA	NA	-111 days	294	47FF	0%	
299	CSDB-15000	SW5	Surrounding Site formation works and road works			180 days	Sat 24/9/22	Wed 22/3/23	NA	NA	166 days	297	48FF	0%	
300	**CHPB-00000**	*	**Combined Heat Power Building (3)**			**1046 days**	**Tue 10/12/19**	**Mon 26/6/23**	**Tue 10/12/19**	**NA**	**59 days**			**13%**	
309	**CHPB-08000**	**KD3C**	**R.C. Structure**			**263 days**	**Thu 26/8/21**	**Mon 18/7/22**	**NA**	**NA**	**-188 days**	**205,206,133,307,204,308S**	**316,317,315**	**0%**	**10**
315	CHPB-09000	**KD3C**	**Allow access to Contarctor DE/2018/03 for E&M Installation**			**1 day**	**Tue 19/7/22**	**Tue 19/7/22**	**NA**	**NA**	**-188 days**	**309,314**	**40FF**	**0%**	
317	CHPB-11000	SW3	ABWF Works & BS Works		(95), (173)	135 days	Tue 19/7/22	Wed 28/12/22	NA	NA	-23 days	309,208,135	319,46FF	0%	
318	CHPB-11500	SW4	Surrounding sewerage, utility and process pipe works			107 days	Tue 19/7/22	Wed 23/11/22	NA	NA	-172 days	314	47FF	0%	
319	CHPB-12000	SW5	Surrounding Site formation works and road works			180 days	Thu 29/12/22	Mon 26/6/23	NA	NA	70 days	317	48FF	0%	
320	**CSPS-00000**	*	**Sewage Pumping Station (9)**			**821 days**	**Fri 15/11/19**	**Wed 24/8/22**	**Fri 15/11/19**	**NA**	**305 days**			**16%**	
330	CSPS-09000	KD3E	R.C. Structure & waterproofing works	(165), (181)	(63)	230 days	Tue 26/1/21	Fri 5/11/21	Tue 26/1/21	NA	50 days	328,133,204,205,206,329S	331,42FF,365SS-	0%	
331	CSPS-10000	SW3	ABWF Works & BS Works & Apply Internal Anti-corrosion Protective Lining			90 days	Sat 6/11/21	Fri 25/2/22	NA	NA	226 days	208,135,134,330	333,46FF	0%	3
332	CSPS-10500	SW4	Surrounding sewerage, utility and process pipe works			120 days	Sat 6/11/21	Fri 1/4/22	NA	NA	191 days	330	47FF	0%	
333	CSPS-11000	SW5	Surrounding Site formation works and road works			180 days	Sat 26/2/22	Wed 24/8/22	NA	NA	376 days	331	48FF	0%	
334	**CWS2-00000**	*	**Workshop No. 2 (5)**			**884 days**	**Tue 24/12/19**	**Sat 17/12/22**	**Tue 24/12/19**	**NA**	**209 days**			**14%**	
346	CWS2-08030	KD3D	Roof Construction @+19.00mPD			40 days	Sat 13/11/21	Fri 31/12/21	NA	NA	-118 days	345	348,349,347,404,	0%	
347	CWS2-09000	**KD3D**	**Allow access to Contarctor DE/2018/03 for E&M Installation**			**0 days**	**Fri 31/12/21**	**Fri 31/12/21**	**NA**	**NA**	**-118 days**	**346**	**41FF**	**0%**	
349	CWS2-11000	SW3	ABWF Works & BS Works		(95), (173)	135 days	Mon 3/1/22	Mon 20/6/22	NA	NA	135 days	208,135,346	351,46FF	0%	
350	CWS2-11500	SW4	Surrounding sewerage, utility and process pipe works			125 days	Mon 3/1/22	Wed 8/6/22	NA	NA	140 days	346	47FF	0%	
351	CWS2-12000	SW5	Surrounding Site formation works and road works			180 days	Tue 21/6/22	Sat 17/12/22	NA	NA	261 days	349	48FF	0%	
352	**CTHP-00000**	*	**Thermal Hydrolysis Pretreatment (6)**			**749 days**	**Thu 19/12/19**	**Tue 5/7/22**	**Thu 19/12/19**	**NA**	**348 days**			**35%**	
362	CTHP-09000	KD3E	R.C. Plinth	(165), (181)	225, (115)	0 days	Mon 2/11/20	Sat 28/11/20	Mon 2/11/20	Sat 28/11/20	0 days	360,265,361SS-2 emons	363,42FF	100%	
363	CTHP-10000	SW5	Surrounding Site formation works and road works			180 days	Fri 7/1/22	Tue 5/7/22	NA	NA	426 days	362,426SS	48FF	0%	
364	**CFCD-00000**	*	**Ferric Chloride Dosing Facilities (10)**			**377 days**	**Wed 11/8/21**	**Wed 16/11/22**	**NA**	**NA**	**-30 days**			**0%**	
369	CFCD-04000	KD3E	Steel Roof Structure (On-site Fabrication)			65 days	Mon 3/1/22	Tue 22/3/22	NA	NA	-30 days	368	370,42FF	0%	
370	CFCD-05000	SW3	ABWF Works & BS Works			45 days	Wed 23/3/22	Fri 20/5/22	NA	NA	160 days	369,208,135	371,46FF	0%	
371	CFCD-06000	SW5	Surrounding Site formation works and road works			180 days	Sat 21/5/22	Wed 16/11/22	NA	NA	292 days	370	48FF	0%	
372	**CFHB-00000**	*	**Fire Hydrant and Booster Pump Room (16)**			**302 days**	**Fri 31/12/21**	**Sat 7/1/23**	**NA**	**NA**	**-83 days**			**0%**	
376	CFHB-03000	KD3E	R.C. Structure & waterproofing works			60 days	Wed 2/3/22	Tue 17/5/22	NA	NA	-103 days	374	377,42FF,478,475	0%	5
377	CFHB-04000	SW3	ABWF Works & BS Works			45 days	Wed 18/5/22	Mon 11/7/22	NA	NA	118 days	376,208,135	378,46FF	0%	
378	CFHB-05000	SW5	Surrounding Site formation works and road works			180 days	Tue 12/7/22	Sat 7/1/23	NA	NA	240 days	377	48FF	0%	
379	**CTFS-00000**	*	**Transformer and Switchroom (15)**			**330 days**	**Tue 11/1/22**	**Wed 22/2/23**	**NA**	**NA**	**-101 days**			**0%**	
383	CTFS-03000	KD3E	R.C. Structure			60 days	Mon 14/3/22	Sat 28/5/22	NA	NA	-113 days	381,133,413,204,382SS-2	384,42FF,478,475	0%	5
384	CTFS-04000	SW3	ABWF Works & BS Works		(95)	75 days	Mon 30/5/22	Fri 26/8/22	NA	NA	78 days	383,208,135	385,46FF	0%	
385	CTFS-05000	SW5	Surrounding Site formation works and road works			180 days	Sat 27/8/22	Wed 22/2/23	NA	NA	194 days	384	48FF	0%	
386	**CWMC-00000**	*	**Water Meter Cabinet (11)**		**204**	**263 days**	**Sat 15/1/22**	**Sun 4/12/22**	**NA**	**NA**	**9 days**			**0%**	
390	CWMC-03000	SW4	ABWF Works & BS Works			15 days	Fri 20/5/22	Tue 7/6/22	NA	NA	-31 days	389,208,135	391,47FF	0%	
391	CWMC-04000	SW5	Surrounding Site formation works and road works			180 days	Wed 8/6/22	Sun 4/12/22	NA	NA	274 days	390	48FF	0%	
392	**CGH-00000**	*	**Guard House (14)**			**272 days**	**Tue 23/11/21**	**Tue 25/10/22**	**NA**	**NA**	**29 days**			**0%**	
396	CGH-03000	SW4	ABWF Works & BS Works		(95)	45 days	Thu 3/3/22	Thu 28/4/22	NA	NA	0 days	395,208,135	397,47FF	0%	
397	CGH-04000	SW5	Surrounding Site formation works and road works			180 days	Fri 29/4/22	Tue 25/10/22	NA	NA	314 days	396	48FF	0%	
398	**CCPS-00000**	*	**THP Coolers Pumping Station (21)**			**258 days**	**Fri 7/1/22**	**Sun 20/11/22**	**NA**	**NA**	**-11 days**			**0%**	
401	CCPS-02000	SW4	R.C. Structure			60 days	Wed 9/3/22	Tue 24/5/22	NA	NA	-20 days	399,133,204,400SS-2 emo	402,47FF	0%	5
402	CCPS-03000	SW5	Surrounding Site formation works and road works			180 days	Wed 25/5/22	Sun 20/11/22	NA	NA	288 days	401	48FF	0%	
403	**CWGB-00000**	*	**Waste Gas Buner (8)**			**213 days**	**Tue 14/12/21**	**Sun 4/9/22**	**NA**	**NA**	**-24 days**			**0%**	



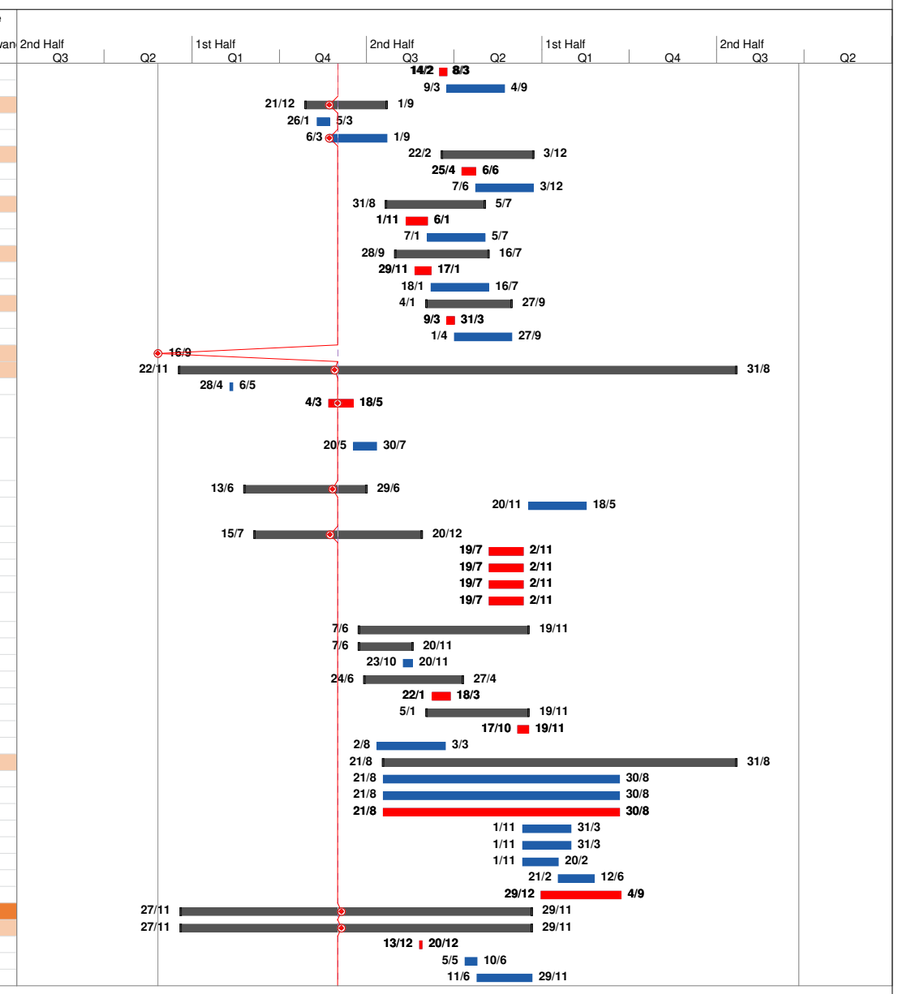
Critical Split | Task | Milestone | Summary | Critical

Contract No.: DC/2018/06
Contract Title: Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
- Civil Works for Sludge Treatment Facilities and 132kV Primary Substation

Updated Programme (Status Date: 31/07/2021)

群利－俊和聯營體
KL－CW JV

ID	Activity ID	KD	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Duration	Start	Finish	Actual Start	Actual Finish	Total Slack	Predecessors	Successors	% Comple	Time Risk Allowan
407	CWGB-03000	KD3E	R.C. Plinth			20 days	Mon 14/2/22	Tue 8/3/22	NA	NA	-38 days	405,133,406SS-2 emons	437,408,42FF	0%	
408	CWGB-04000	SW5	Surrounding Site formation works and road works			180 days	Wed 9/3/22	Sun 4/9/22	NA	NA	365 days	407	48FF	0%	
409	**CPSW-00000**	*	**Plant Services Water System (20)**			**205 days**	**Mon 21/12/20**	**Wed 1/9/21**	**Mon 21/12/20**	**NA**	**594 days**			**14%**	
413	CPSW-03000	KD3E	Basement Construction @+1.20mPD		(136), (117)	0 days	Tue 26/1/21	Fri 5/3/21	Tue 26/1/21	Fri 5/3/21	0 days	411,133,412SS-2 emons	383,414,42FF	100%	
414	CPSW-04000	SW5	Surrounding Site formation works and road works			180 days	Sat 6/3/21	Wed 1/9/21	NA	NA	733 days	413	48FF	0%	
415	**CDS11-00000**	*	**Deodorization System No. 11 (18)**			**234 days**	**Tue 22/2/22**	**Sat 3/12/22**	**NA**	**NA**	**-108 days**			**0%**	
419	CDS11-03000	KD3E	R.C. Plinth			34 days	Mon 25/4/22	Mon 6/6/22	NA	NA	-119 days	417,133,418SS-2 emons	420,42FF,478,475	0%	
420	CDS11-04000	SW5	Surrounding Site formation works and road works			180 days	Tue 7/6/22	Sat 3/12/22	NA	NA	275 days	419	48FF	0%	
421	**CBGH-00000**	*	**Biogas Holder (7)**			**248 days**	**Tue 31/8/21**	**Tue 5/7/22**	**NA**	**NA**	**12 days**			**0%**	
425	CBGH-03000	KD3E	R.C. Plinth			55 days	Mon 1/11/21	Thu 6/1/22	NA	NA	0 days	423,133,424SS-2 emons	426,42FF,478,475	0%	
426	CBGH-04000	SW5	Surrounding Site formation works and road works			180 days	Fri 7/1/22	Tue 5/7/22	NA	NA	426 days	425	48FF,363SS	0%	
427	**CH2S-00000**	*	**H2S Removal System (12)**			**235 days**	**Tue 28/9/21**	**Sat 16/7/22**	**NA**	**NA**	**-15 days**			**0%**	
431	CH2S-03000	KD3E	R.C. Plinth			40 days	Mon 29/11/21	Mon 17/1/22	NA	NA	-36 days	429,430SS-2 emons	432,42FF,399,43	0%	
432	CH2S-04000	SW5	Surrounding Site formation works and road works			180 days	Tue 18/1/22	Sat 16/7/22	NA	NA	415 days	431	48FF	0%	
433	**CDS12-00000**	*	**Deodorization System No. 12 (19)**			**217 days**	**Tue 4/1/22**	**Tue 27/9/22**	**NA**	**NA**	**-24 days**			**0%**	
437	CDS12-03000	KD3E	R.C. Plinth			20 days	Wed 9/3/22	Thu 31/3/22	NA	NA	-38 days	435,133,407,436SS-2 emo	438,42FF	0%	
438	CDS12-04000	SW5	Surrounding Site formation works and road works			180 days	Fri 1/4/22	Tue 27/9/22	NA	NA	342 days	437	48FF	0%	
439	CUPH-00000	*	Underpass & Pump House		332	0 days	Mon 16/9/19	Mon 16/9/19	NA	NA	0 days			0%	
440	**CPWU-00000**	*	**Pipe Works and Utility Installation**			**1407 days**	**Fri 22/11/19**	**Sat 31/8/24**	**Fri 22/11/19**	**NA**	**0 days**			**11%**	
445	CPWU-01130	KD1A	Stage 1 - Backfilling Works for Drainage Diversion			9 days	Tue 28/4/20	Wed 6/5/20	Tue 28/4/20	Wed 6/5/20	0 days		229	100%	
446	CPWU-01140	KD1A	Stage 2 - Drainage Diversion of Drainage b/w MHD26 and SMHH1003177A, to Abandon of Exisitng Drainage Culvert (1 Cell, 1000mm x 1150mm) within Portion C-1A & C-1B - Part 1	(181)		60 days	Thu 4/3/21	Tue 18/5/21	Thu 4/3/21	NA	-28 days	241	447	40%	
447	CPWU-01150	SW1	Stage 2 - Drainage Diversion of Drainage b/w MHD26 and SMHH1003177A, to Abandon of Exisitng Drainage Culvert (1 Cell, 1000mm x 1150mm) outside Portion C-1A & C-1B - Part 2			60 days	Thu 20/5/21	Fri 30/7/21	NA	NA	33 days	446	44FF	0%	
448	CPWU-01200	**SW4**	**Trenchless Work for Pipe Installation**			**309 days**	**Sat 13/6/20**	**Tue 29/6/21**	**Sat 13/6/20**	**NA**	**502 days**		**47FF**	**64%**	
471	CPWU-01020	SW5	Surrounding Site formation works and road works			180 days	Sun 20/11/22	Thu 18/5/23	NA	NA	109 days	470,478,479,480,481,482	48FF	0%	
475	CPWU-02111	**SW1**	**Effluent Pipe(approx. 70m, dia 300-1600)**			**524 days**	**Wed 15/7/20**	**Mon 20/12/21**	**Wed 15/7/20**	**NA**	**338 days**			**79%**	
478	CPWU-02120	SW4	Remaining Effluent Pipes & testing works			89 days	Tue 19/7/22	Wed 2/11/22	NA	NA	-154 days	138,288,341,197,200,271,2	47FF,471	0%	
479	CPWU-02130	SW4	Stormdrain Pipeworks & testing works			89 days	Tue 19/7/22	Wed 2/11/22	NA	NA	-154 days	138,288,341,188,271,294,2	47FF,471	0%	
480	CPWU-02140	SW4	Sewerage Pipeworks, manhole, protective lining & testing works		210	89 days	Tue 19/7/22	Wed 2/11/22	NA	NA	-154 days	138,288,341,194,271,294,2	47FF,471	0%	
481	CPWU-02150	SW4	Watermain Pipeworks & testing works		205, 206, 207, 216, 219, 220, 221, 221-1, 222	89 days	Tue 19/7/22	Wed 2/11/22	NA	NA	-154 days	138,288,341,191,194,271,2	47FF,471	0%	
482	**CPWU-02160**	**SW4**	Cable & Other Underground Utility Pipeworks			**434 days**	**Mon 7/6/21**	**Sat 19/11/22**	**NA**	**NA**	**-342 days**	**138,288,341**	**471**	**0%**	
483	**CPWU-02161**	**SW1**	**Portion C1-B, Area 1**			**139 days**	**Mon 7/6/21**	**Sat 20/11/21**	**NA**	**NA**	**273 days**	**249**	**44FF**	**0%**	
490	CPWU-02161g	SW1	Road works (footpath 25m)			25 days	Sat 23/10/21	Sat 20/11/21	NA	NA	273 days	489	477	0%	
491	**CPWU-02162**	**SW1**	**Portion C1-1B, Area 2**			**250 days**	**Thu 24/6/21**	**Wed 27/4/22**	**NA**	**NA**	**-356 days**		**44FF**	**0%**	
509	CPWU-02162j4	SW1	Road works (footpath & carriageway)			45 days	Sat 22/1/22	Fri 18/3/22	NA	NA	-356 days	508,507	511FS-60 days	0%	
510	**CPWU-02163**	**SW1**	**Portion C1-1B, Area 3**			**260 days**	**Wed 5/1/22**	**Sat 19/11/22**	**NA**	**NA**	**-356 days**		**44FF**	**0%**	
516	CPWU-02163f	SW1	Road Works (footpath & carriageway)			30 days	Mon 17/10/22	Sat 19/11/22	NA	NA	-356 days	515		0%	
517	CPWU-02200	SW4	Pipe Bridge No.1			175 days	Mon 2/8/21	Thu 3/3/22	NA	NA	44 days	2	47FF	0%	
518	**CRWL-00000**	*	**Remaining Works & Landscape Works**			**891 days**	**Sat 21/8/21**	**Sat 31/8/24**	**NA**	**NA**	**0 days**			**0%**	
519	CRWL-01000	SW5	Irrigation System		218	600 days	Sat 21/8/21	Wed 30/8/23	NA	NA	4 days	141	48FF	0%	
520	CRWL-02000	SW5	Hard Landscape Works			600 days	Sat 21/8/21	Wed 30/8/23	NA	NA	4 days	141	48FF	0%	
521	CRWL-03000	SW5	Soft Landscape Works			600 days	Sat 21/8/21	Wed 30/8/23	NA	NA	0 days	141	527,48FF	0%	
522	CRWL-04000	SW5	Outfall for Effluent Pipes			124 days	Tue 1/11/22	Fri 31/3/23	NA	NA	126 days	180	48FF	0%	
523	CRWL-05000	SW5	Slope Formation Works near Outfall			124 days	Tue 1/11/22	Fri 31/3/23	NA	NA	126 days	180	48FF	0%	
524	CRWL-06000	SW5	Removal of invasive trees along River Embankment		(37)	90 days	Tue 1/11/22	Mon 20/2/23	NA	NA	70 days	180	525	0%	
525	CRWL-07000	SW5	Retaining Wall along River Embankment, street furniture & road works			90 days	Tue 21/2/23	Mon 12/6/23	NA	NA	70 days	180,524	48FF	0%	
526	CRWL-08000	SW5	Remaining Site formation works, road works and boundary fence wall			250 days	Thu 29/12/22	Mon 4/9/23	NA	NA	0 days	46	48FF	0%	
528	**CWPA-00000**	*	**Construction of Portion A of the Site**			**891 days**	**Wed 27/11/19**	**Tue 29/11/22**	**Wed 27/11/19**	**NA**	**144 days**			**42%**	
529	**C132S-00000**	*	**132kV Substation**			**891 days**	**Wed 27/11/19**	**Tue 29/11/22**	**Wed 27/11/19**	**NA**	**144 days**			**42%**	
559	C132SI-31000	KD2A	**Handover to CLP for Electrical System Installation**			7 days	Mon 13/12/21	Mon 20/12/21	NA	NA	-96 days	557,558	560,37FF	0%	
561	C132SI-33000	SW2	Inspection and Handover to CLP			30 days	Thu 5/5/22	Fri 10/6/22	NA	NA	144 days	560	578,45FF	0%	
578	C132SE-03000	SW2	Construction of New Boundary Wall		(155)	143 days	Sat 11/6/22	Tue 29/11/22	NA	NA	144 days	561,577	45FF	0%	

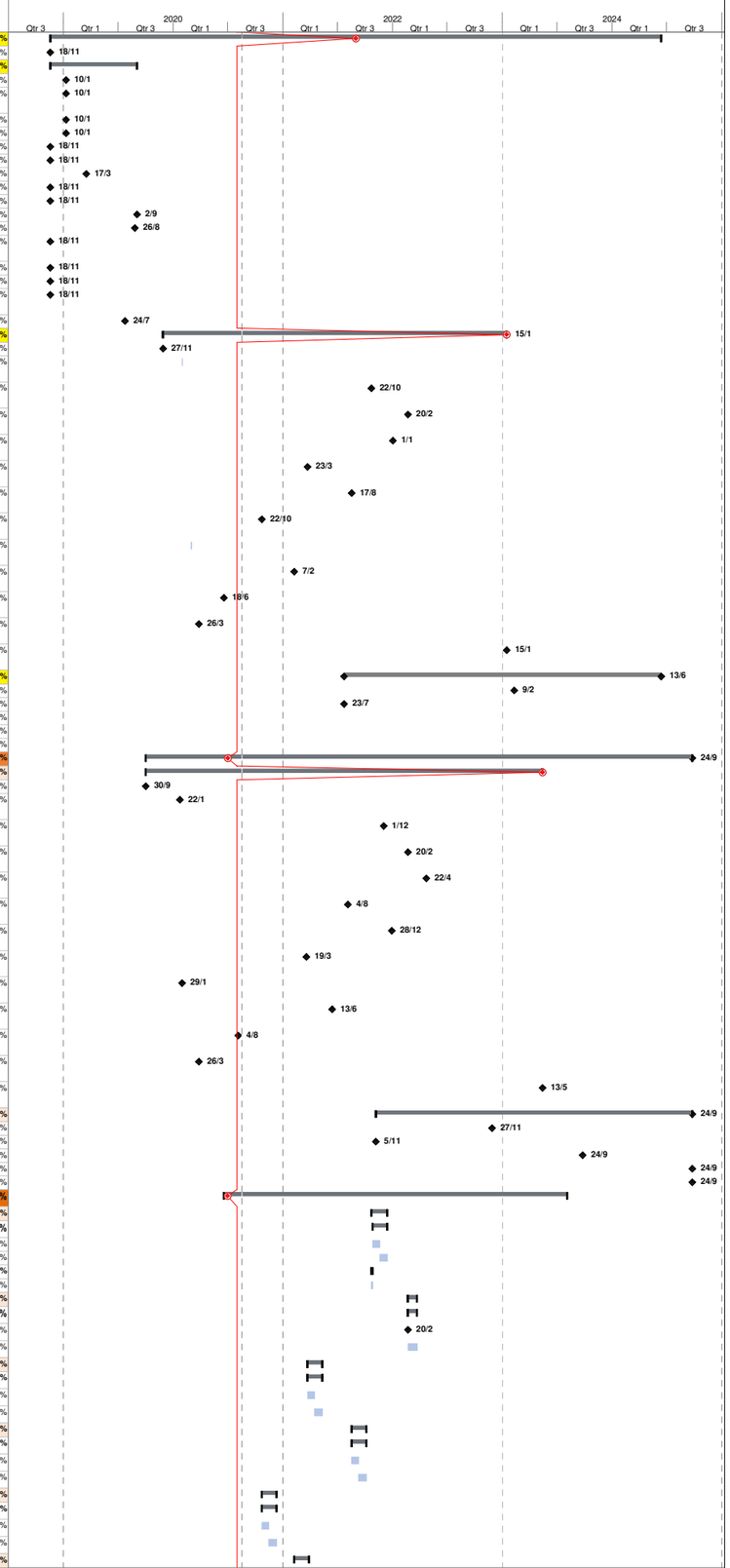


Critical Split | Task | Milestone | Summary | Critical

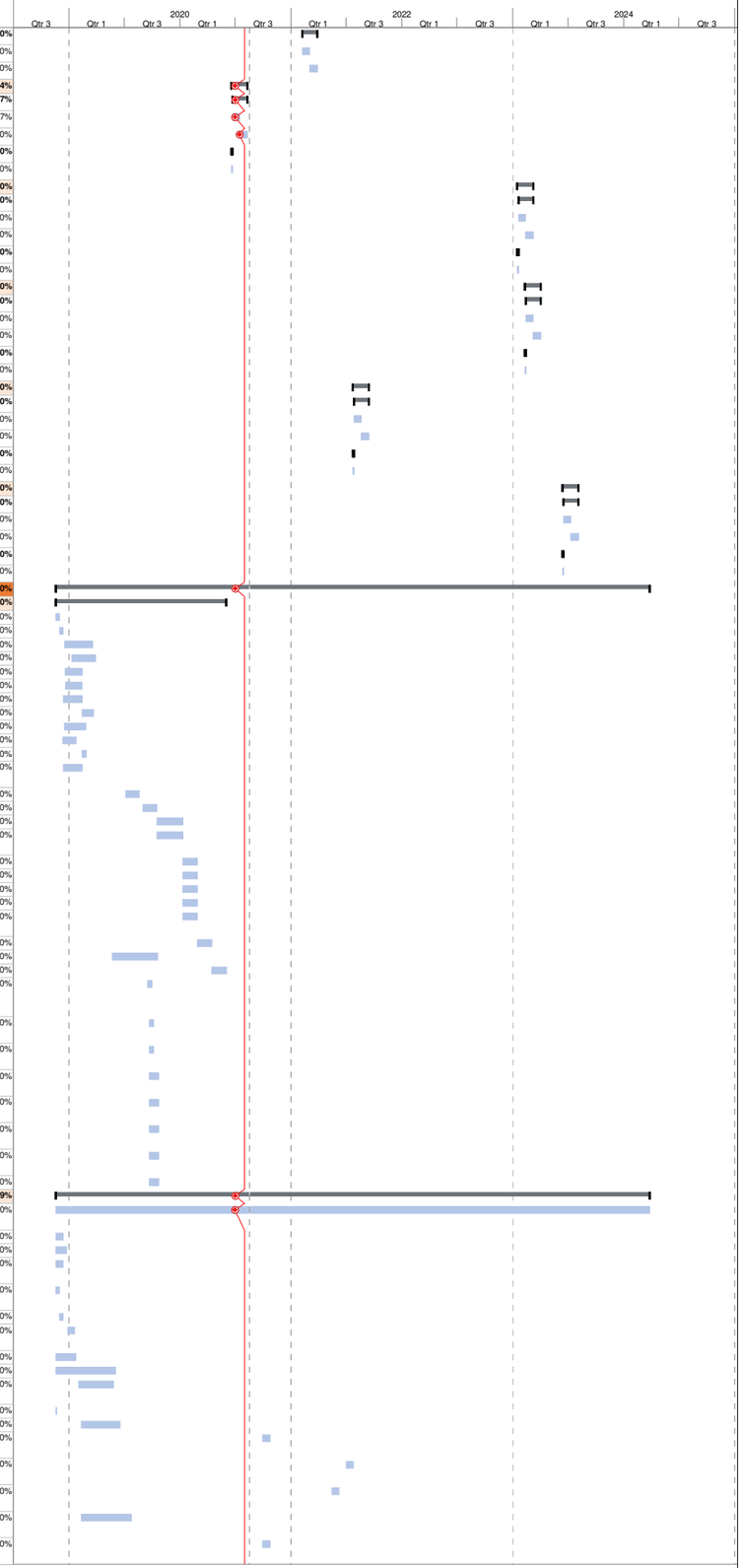
Contract No. DC/2018/07
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1

Revised Works Programme (Status Date: 31/07/2021)

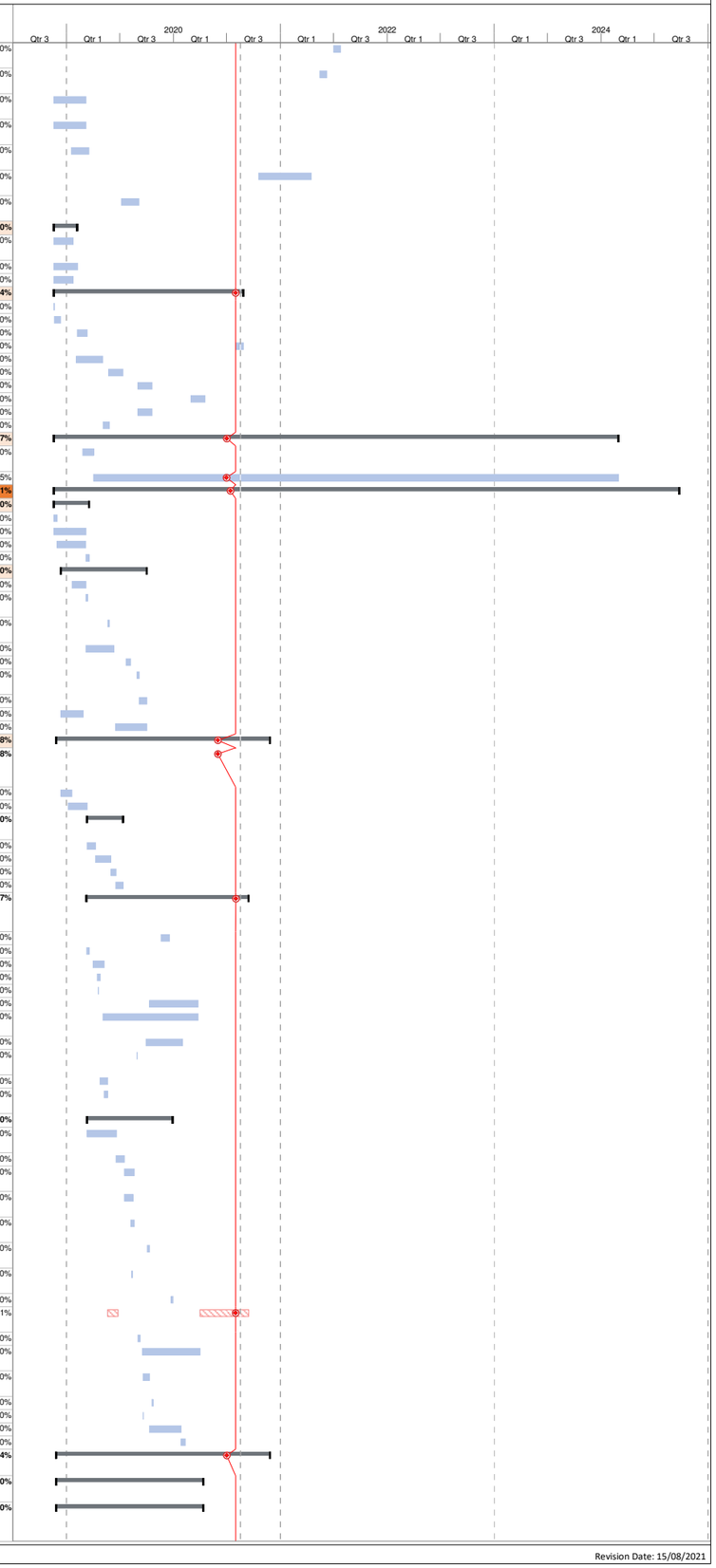
ID	Activity ID	Key Date	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
1	**CD-1000**		**Contract Dates**			**1585 days**	**Mon 18/11/19**	**Thu 27/3/25**	**1651.5 days**	**Mon 18/11/19**	**Fri 13/6/25**	**Mon 18/11/19**	**NA**			**88.5 days**		**0%**
2	CD-1010		Starting Date			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19		8,9,13FS+290 days,14FS+311 days	0 days		100%
3	**CAD-1000**		**Access Dates (cal. day)**			**310 days**	**Mon 18/11/19**	**Wed 23/9/20**	**289 days**	**Mon 18/11/19**	**Wed 2/9/20**	**Mon 18/11/19**	**Wed 2/9/20**			**0 days**		**100%**
4	CAD-1010		Portion B-1 (Access Road AR3)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	2	201	0 days		100%
5	CAD-1020		Portion B-1A (Area for the works for Sidestream Treatment Facilities by Others			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	2		0 days		100%
6	CAD-1030		Portion B-2 (Inlet Works No.1)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	2	295,306	0 days		100%
7	CAD-1040		Portion B-2A (Area for the pipe-jacking works by others)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	2		0 days		100%
8	CAD-1050		Portion B-3 (Primary Sedimentation Tanks No. 1-4)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2	335	0 days		100%
9	CAD-1060		Portion B-4 (Bioreactor No. 2A & 2B)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2	353	0 days		100%
10	CAD-1070		Portion B-5 (Membrane Facilities Building No.2)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Tue 17/3/20	Tue 17/3/20	Tue 17/3/20	Tue 17/3/20	2	402,419,425	0 days		100%
11	CAD-1080		Portion B-6 (SAS Pumping Station)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2	434	0 days		100%
12	CAD-1090		Portion B-7 (Ancillary structures)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2	461	0 days		100%
13	CAD-1100		Portion B-7A (Alternation works for existing Power House)			0 days	Wed 2/9/20	Wed 2/9/20	0 days	Wed 2/9/20	Wed 2/9/20	Wed 2/9/20	Wed 2/9/20	2FS+290 days	539FS-1 day,29FS+179 days	0 days		100%
14	CAD-1110		Portion B-8 (Alternation for existing Membrane Facilities Building No.1)			0 days	Tue 22/9/20	Tue 22/9/20	0 days	Wed 26/8/20	Wed 26/8/20	Wed 26/8/20	Wed 26/8/20	2FS+311 days	541FS-1 day	0 days		100%
15	CAD-1020		Portion B-8A (Alternation of air supply main for existing Air Blower House No.2)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2	532	0 days		100%
16	CAD-1130		Portion B-9 (remainder works in Zone B)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2	542,556	0 days		100%
17	CAD-1140		Portion B-9A (Area for the pipe-jacking works by others)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2		0 days		100%
18	CAD-1150		Portion B-9B (Area for underground pipework modification and connection works by others)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2		0 days		100%
19	CAD-1160		Portion B-9C (Area for the works for pipeworks)			0 days	Wed 22/7/20	Wed 22/7/20	0 days	Fri 24/7/20	Fri 24/7/20	Fri 24/7/20	Fri 24/7/20	2FS+151 days		0 days		100%
20	**CKD-1000**		**Key Dates (cal. day)**			**1440 days**	**Tue 19/11/19**	**Sat 28/10/23**	**1144 days**	**Fri 27/11/20**	**Mon 15/1/24**	**Fri 27/11/20**	**NA**			**618 days**		**99%**
21	CKD-1010		KD1A completion of AR3 in Portion B-1 (375 days after starting date)			300 days	Tue 19/11/19	Sun 13/9/20	0 days	Fri 27/11/20	Fri 27/11/20	Fri 27/11/20	Fri 27/11/20	2FS+376 days		0 days		100%
22	CKD-1020		KD1B completion of utilities diversion for commencement of Inlet Works No.1 in Portion B-2 (438.5 days after starting date)			360 days	Tue 19/11/19	Thu 12/11/20	1 day	Sat 30/1/21	Sat 30/1/21	Sat 30/1/21	Sat 30/1/21	2FS+439.5 days		0 days		100%
23	CKD-1030		KD1C completion of civil and structural works of Inlet Works No.1 in Portion B-2 (1068.5 days after starting date)			990 days	Tue 19/11/19	Thu 4/8/22	0 days	Sat 22/10/22	Sat 22/10/22	NA	NA	2FS+1069.5 days	67	1056.5 days		0%
24	CKD-1040		KD1D completion of civil and structural works of Primary Sedimentation Tanks in Portion B-3 (1190days after starting date)			1190 days	Tue 19/11/19	Mon 20/2/23	0 days	Mon 20/2/23	Mon 20/2/23	NA	NA	2FS+1191 days	70	947 days		0%
25	CKD-1050		KD1E completion of civil and structural works of Bioreactor in Portion B-4 (1140days after starting date)			1140 days	Tue 19/11/19	Sun 1/1/23	0 days	Sun 1/1/23	Sun 1/1/23	NA	NA	2FS+1141 days		997 days		0%
26	CKD-1060		KD1F completion of civil and structural works of MFB from B2 floor to 1st floor level in Portion B-5 (855.5 days after starting date)			800 days	Tue 19/11/19	Wed 26/1/22	0 days	Wed 23/3/22	Wed 23/3/22	NA	NA	2FS+856.5 days	74	1273.5 days		0%
27	CKD-1070		KD1G completion of civil and structural works of MFB in Portion B-5 (1002.5 days after starting date)			950 days	Tue 19/11/19	Sat 25/6/22	0 days	Wed 17/8/22	Wed 17/8/22	NA	NA	2FS+1003.5 days	78	1126.5 days		0%
28	CKD-1080		KD1H completion of civil and structural works of SAS Pumping Station in Portion B-6 (703.5 days after starting date)			630 days	Tue 19/11/19	Mon 9/8/21	0 days	Fri 22/10/21	Fri 22/10/21	NA	NA	2FS+704.5 days	82	1425.5 days		0%
29	CKD-1090		KD1I completion alternation works for existing Power House in Portion B-7A (179days after access date of B-7A)			150 days	Fri 4/9/20	Sun 31/1/21	1 day	Mon 1/3/21	Mon 1/3/21	Mon 1/3/21	Mon 1/3/21	13FS+179 days		0 days		100%
30	CKD-1100		KD1J completion of auxiliary facilites in Portion B-7 (811.5 days after starting date)			800 days	Tue 19/11/19	Wed 26/1/22	0 days	Mon 7/2/22	Mon 7/2/22	NA	NA	2FS+812.5 days	86	1317.5 days		0%
31	CKD-1110		KD2A completion of effluent pipes to UV system and connection to its downstream in Portion B-9 (577.5 days after starting date)			495 days	Tue 19/11/19	Sat 27/3/21	0 days	Fri 18/6/21	Fri 18/6/21	Fri 18/6/21	Fri 18/6/21	2FS+578.5 days	93	0 days		100%
32	CKD-1120		KD2B completion of air supply main alternation to existing air blower house No.2 in Portion B-8A (494 days after starting date)			420 days	Tue 19/11/19	Mon 11/1/21	0 days	Fri 26/3/21	Fri 26/3/21	Fri 26/3/21	Fri 26/3/21	2FS+495 days		0 days		100%
33	CKD-1130		KD3A completion of all utilities and road works (1519 days after starting date)			1440 days	Tue 19/11/19	Sat 28/10/23	0 days	Mon 15/1/24	Mon 15/1/24	NA	NA	2FS+1520 days	99	606 days		0%
34	**CCD-1000**		**Completion Date (cal. Day)**			**1956 days**	**Tue 19/11/19**	**Thu 27/3/25**	**1056 days**	**Sat 23/7/22**	**Fri 13/6/25**	**Sat 23/7/22**	**NA**			**50.5 days**		**0%**
35	CCD-1010		Section 1 of the Works (1,543.5 after starting date)			1460 days	Tue 19/11/19	Fri 17/11/23	0 days	Fri 9/2/24	Fri 9/2/24	NA	NA	2FS+1544.5 days	105	0 days		0%
36	CCD-1020		Section 2 of the Works (977.5 after starting date)			900 days	Tue 19/11/19	Fri 6/5/22	0 days	Sat 23/7/22	Sat 23/7/22	NA	NA	2FS+978.5 days	111	0 days		0%
37	CCD-1030		Section 3 of the Works (1,667.5 after starting date)			1590 days	Tue 19/11/19	Tue 26/3/24	0 days	Wed 12/6/24	Wed 12/6/24	Wed 12/6/24	NA	2FS+1668.5 days	39FS+1 day,117,38FS+1 day	-77.5 days		99%
38	CCD-1040		Defects Liability Period			365 days	Wed 27/3/24	Thu 27/3/25	365 days	Thu 13/6/24	Fri 13/6/25	NA	NA	37FS+1 day		0 days		0%
39	CCD-1050		Landscape Establishment Works			365 days	Wed 27/3/24	Thu 27/3/25	365 days	Thu 13/6/24	Fri 13/6/25	NA	NA	37FS+1 day		103.5 days		0%
40	**PD-1000**	*	**Planned Completion**			**1686 days**	**Fri 14/8/20**	**Thu 27/3/25**	**1820 days**	**Wed 30/9/20**	**Wed 24/9/25**	**Wed 30/9/20**	**NA**			**0 days**		**3%**
41	**PCD-1000**	*	**Planned Completion - Key Dates (cal. day)**			**1170 days**	**Fri 14/8/20**	**Sat 28/10/23**	**1321 days**	**Wed 30/9/20**	**Mon 13/5/24**	**Wed 30/9/20**	**NA**			**-119 days**		**99%**
42	PKD-1010	KD1A	KD1A completion of AR3 in Portion B-1 (300days after starting date)			0 days	Sat 12/9/20	Sat 12/9/20	0 days	Wed 30/9/20	Wed 30/9/20	Wed 30/9/20	Wed 30/9/20	210FF		0 days		100%
43	PCD-1020	KD1B	KD1B completion of utilities diversion for commencement of Inlet Works No.1 in Portion B-2 (360days after starting date)			0 days	Fri 14/8/20	Fri 14/8/20	0 days	Fri 22/1/21	Fri 22/1/21	Fri 22/1/21	Fri 22/1/21	286FF,291FF,273FF		0 days		100%
44	PCD-1030	KD1C	KD1C completion of civil and structural works of Inlet Works No.1 in Portion B-2 (990days after starting date)			0 days	Thu 4/8/22	Thu 4/8/22	0 days	Thu 1/12/22	Thu 1/12/22	NA	NA	330FF,322FF,248FF,294FF,212FF,250FF		-40 days		0%
45	PCD-1040	KD1D	KD1D completion of civil and structural works of Primary Sedimentation Tanks in Portion B-3 (1190days after starting date)			0 days	Mon 20/2/23	Mon 20/2/23	0 days	Mon 20/2/23	Mon 20/2/23	NA	NA	349FF,348FF,351FF,333FF		0 days		0%
46	PCD-1050	KD1E	KD1E completion of civil and structural works of Bioreactor in Portion B-4 (1,140days after starting date)			0 days	Sat 31/12/22	Sat 31/12/22	0 days	Sat 22/4/23	Sat 22/4/23	NA	NA	391FF,397FF,393FF,396FF,392FF		-111 days		0%
47	PCD-1060	KD1F	KD1F completion of civil and structural works of MFB from B2 floor to 1st floor level in Portion B-5 (800days after starting date)			0 days	Tue 25/1/22	Tue 25/1/22	0 days	Thu 4/8/22	Thu 4/8/22	NA	NA	430FF		-135 days		0%
48	PCD-1070	KD1G	KD1G completion of civil and structural works of MFB in Portion B-5 (950days after starting date)			0 days	Sat 25/6/22	Sat 25/6/22	0 days	Wed 28/12/22	Wed 28/12/22	NA	NA	431FF		-133 days		0%
49	PCD-1080	KD1H	KD1H completion of civil and structural works of SAS Pumping Station in Portion B-6 (630days after starting date)			0 days	Mon 9/8/21	Mon 9/8/21	0 days	Sat 19/3/22	Sat 19/3/22	NA	NA	459FF,458FF		-148 days		0%
50	PCD-1090	KD1I	KD1I completion alternation works for existing Power House in Portion B-7A (150days after access date of B-7A)			0 days	Sat 30/1/21	Sat 30/1/21	1 day	Fri 29/1/21	Fri 29/1/21	Fri 29/1/21	Fri 29/1/21	539FF		0 days		100%
51	PCD-1100	KD1J	KD1J completion of auxiliary facilites in Portion B-7 (800days after starting date)			0 days	Wed 26/1/22	Wed 26/1/22	0 days	Mon 13/6/22	Mon 13/6/22	NA	NA	496FF,495FF,521FF,520FF,513FF,512FF		-126 days		0%
52	PCD-1110	KD2A	KD2A completion of effluent pipes to UV system and connection to its downstream in Portion B-9 (495days after starting date)			0 days	Sat 27/3/21	Sat 27/3/21	0 days	Wed 4/8/21	Wed 4/8/21	NA	NA	545FF,543FF		-47 days		0%
53	PCD-1120	KD2B	KD2B completion of air supply main alternation to existing air blower house No.2 in Portion B-8A (420days after starting date)			0 days	Thu 3/9/20	Thu 3/9/20	1 day	Fri 26/3/21	Fri 26/3/21	Fri 26/3/21	Fri 26/3/21	532FF,536FF,537FF,538FF		0 days		100%
54	PCD-1130	KD3A	KD3A completion of all utilities and road works (1440days after starting date)			0 days	Sat 28/10/23	Sat 28/10/23	0 days	Mon 13/5/24	Mon 13/5/24	NA	NA	555FF,557FF		-119 days		0%
55	**PCD-1000**	*	**Planned Completion Date (cal. Day)**			**1056 days**	**Fri 6/5/22**	**Thu 27/3/25**	**1054 days**	**Sat 5/11/22**	**Wed 24/9/25**	**NA**	**NA**			**-106 days**		**0%**
56	PCD-1010	SW1	Section 1 of the Works (1,460 after starting date)			0 days	Wed 23/8/23	Wed 23/8/23	0 days	Mon 27/11/23	Mon 27/11/23	NA	NA	522FF,514FF,477FF,504FF,488FF,460FF		73 days		0%
57	PCD-1020	SW2	Section 2 of the Works (900 after starting date)			0 days	Fri 6/5/22	Fri 6/5/22	0 days	Sat 5/11/22	Sat 5/11/22	NA	NA	549FF,399FF,433FF,352FF,334FF,550FF		-106 days		0%
58	PCD-1030	SW3	Section 3 of the Works (1,590 after starting date)			0 days	Tue 26/3/24	Tue 26/3/24	0 days	Tue 24/9/24	Tue 24/9/24	NA	NA	558FF,559FF,541FF,540FF		-105 days		0%
59	PCD-1040	DLP	Defects Liability Period			0 days	Thu 27/3/25	Thu 27/3/25	0 days	Wed 24/9/25	Wed 24/9/25	NA	NA	560FF,153FF		0 days		0%
60	PCD-1050		Landscape Establishment Works			0 days	Thu 27/3/25	Thu 27/3/25	0 days	Wed 24/9/25	Wed 24/9/25	NA	NA	560FF		0 days		0%
61	**ET-1000**		**Effects from Inclement Weather and Other Time Affected Events**			**0 days**	**NA**	**NA**	**1143 days**	**Fri 18/6/21**	**Sun 4/8/24**	**Fri 18/6/21**	**NA**			**416.5 days**		**2%**
62	**ET1C-1000**		**Effects to KD1C**			**0 days**	**NA**	**NA**	**53 days**	**Sat 22/10/22**	**Wed 14/12/22**	**NA**	**NA**			**1015.5 days**		**0%**
63	**ET1C-1100**		**Inclement Weather to KD1C (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Wed 26/10/22**	**Wed 14/12/22**	**NA**	**NA**			**1015.5 days**		**0%**
64	ET1C-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Wed 26/10/22	Fri 18/11/22	NA	NA	67	65	1015.5 days		0%
65	ET1C-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Fri 18/11/22	Wed 14/12/22	NA	NA	64		1015.5 days		0%
66	**ET1C-1200**		**Other Events to KD1C (not all)**			**0 days**	**NA**	**NA**	**4 days**	**Sat 22/10/22**	**Wed 26/10/22**	**NA**	**NA**			**1015.5 days**		**0%**
67	ET1C-1210		Special working arrangement due to COVID-19 in January 2020			0 days	NA	NA	4 days	Sat 22/10/22	Wed 26/10/22	NA	NA	23	64	1056.5 days		0%
68	**ET1D-1000**		**Effects to KD1D**			**0 days?**	**NA**	**NA**	**26 days**	**Mon 20/2/23**	**Wed 22/3/23**	**NA**	**NA**			**749 days**		**0%**
69	**ET1D-1100**		**Inclement Weather to KD1D (cal. Day)**			**0 days?**	**NA**	**NA**	**26 days**	**Mon 20/2/23**	**Wed 22/3/23**	**NA**	**NA**			**749 days**		**0%**
70	ET1D-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	0 days	Mon 20/2/23	Mon 20/2/23	NA	NA	24	71	749 days		0%
71	ET1D-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Tue 21/2/23	Wed 22/3/23	NA	NA	70		749 days		0%
72	**ET1F-1000**		**Effects to KD1F**			**0 days**	**NA**	**NA**	**49 days**	**Wed 23/3/22**	**Wed 11/5/22**	**NA**	**NA**			**1232.5 days**		**0%**
73	**ET1F-1100**		**Inclement Weather to KD1F (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Wed 23/3/22**	**Wed 11/5/22**	**NA**	**NA**			**1232.5 days**		**0%**
74	ET1F-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Wed 23/3/22	Fri 15/4/22	NA	NA	26	75	1232.5 days		0%
75	ET1F-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Fri 15/4/22	Wed 11/5/22	NA	NA	74		1232.5 days		0%
76	**ET1G-1000**		**Effects to KD1G**			**0 days**	**NA**	**NA**	**49 days**	**Wed 17/8/22**	**Wed 5/10/22**	**NA**	**NA**			**1085.5 days**		**0%**
77	**ET1G-1100**		**Inclement Weather to KD1G (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Wed 17/8/22**	**Wed 5/10/22**	**NA**	**NA**			**1085.5 days**		**0%**
78	ET1G-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Wed 17/8/22	Fri 9/9/22	NA	NA	27	79	1085.5 days		0%
79	ET1G-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Fri 9/9/22	Wed 5/10/22	NA	NA	78		1085.5 days		0%
80	**ET1H-1000**		**Effects to KD1H**			**0 days**	**NA**	**NA**	**49 days**	**Fri 22/10/21**	**Fri 10/12/21**	**NA**	**NA**			**1384.5 days**		**0%**
81	**ET1H-1100**		**Inclement Weather to KD1H (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Fri 22/10/21**	**Fri 10/12/21**	**NA**	**NA**			**1384.5 days**		**0%**
82	ET1H-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Fri 22/10/21	Sun 14/11/21	NA	NA	28	83	1384.5 days		0%
83	ET1H-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Sun 14/11/21	Fri 10/12/21	NA	NA	82		1384.5 days		0%
84	**ET1H-1000**		**Effects to KD1J**			**0 days**	**NA**	**NA**	**49 days**	**Mon 7/2/22**	**Mon 28/3/22**	**NA**	**NA**			**1276.5 days**		**0%**



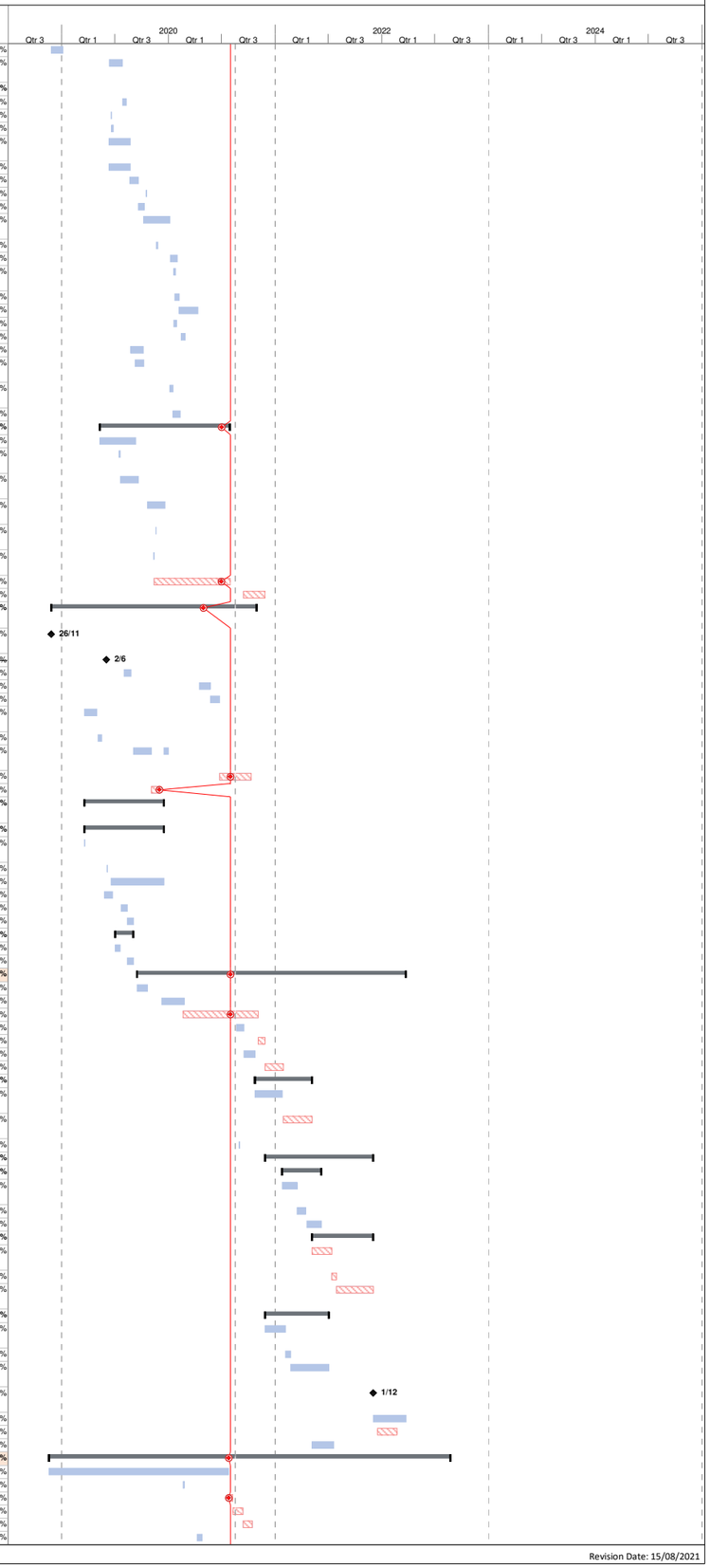
ID	Activity ID	Key Date	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
85	**ET1H-1100**		**Inclement Weather to KD1J (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Mon 7/2/22**	**Mon 28/3/22**	**NA**	**NA**			**1276.5 days**		**0%**
86	ET1H-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Mon 7/2/22	Wed 2/3/22	NA	NA	30	87	1276.5 days		0%
87	ET1H-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Wed 2/3/22	Mon 28/3/22	NA	NA	86		1276.5 days		0%
88	**ET2A-1000**		**Effects to KD2A**			**0 days**	**NA**	**NA**	**53 days**	**Fri 18/6/21**	**Tue 10/8/21**	**Fri 18/6/21**	**NA**			**1506.5 days**		**24%**
89	**ET2A-1100**		**Inclement Weather to KD2A (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Tue 22/6/21**	**Tue 10/8/21**	**Tue 22/6/21**	**NA**			**1506.5 days**		**17%**
90	ET2A-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Tue 22/6/21	Thu 15/7/21	Tue 22/6/21	NA	93	91	1506.5 days		37%
91	ET2A-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Thu 15/7/21	Tue 10/8/21	NA	NA	90		1506.5 days		0%
92	**ET2A-1200**		**Other Events to KD2A (not all)**			**0 days**	**NA**	**NA**	**4 days**	**Fri 18/6/21**	**Tue 22/6/21**	**Fri 18/6/21**	**Tue 22/6/21**			**0 days**		**100%**
93	ET2A-1210		Special working arrangement due to COVID-19 in January 2020			0 days	NA	NA	4 days	Fri 18/6/21	Tue 22/6/21	Fri 18/6/21	Tue 22/6/21	31	90	0 days		100%
94	**ET3A-1000**		**Effects to KD3A**			**0 days**	**NA**	**NA**	**53 days**	**Tue 16/1/24**	**Fri 8/3/24**	**NA**	**NA**			**565 days**		**0%**
95	**ET3A-1100**		**Inclement Weather to KD3A (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Sat 20/1/24**	**Fri 8/3/24**	**NA**	**NA**			**565 days**		**0%**
96	ET3A-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Sat 20/1/24	Sun 11/2/24	NA	NA	99	97	565 days		0%
97	ET3A-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Mon 12/2/24	Fri 8/3/24	NA	NA	96		565 days		0%
98	**ET3A-1200**		**Other Events to KD3A (not all)**			**0 days**	**NA**	**NA**	**4 days**	**Tue 16/1/24**	**Fri 19/1/24**	**NA**	**NA**			**565 days**		**0%**
99	ET3A-1210		Special working arrangement due to COVID-19 in January 2020			0 days	NA	NA	4 days	Tue 16/1/24	Fri 19/1/24	NA	NA	33	96	565 days		0%
100	**ETS1-1000**		**Effects to Section 1 of the Works**			**0 days**	**NA**	**NA**	**53 days**	**Fri 9/2/24**	**Tue 2/4/24**	**NA**	**NA**			**540.5 days**		**0%**
101	**ETS1-1100**		**Inclement Weather to Section 1 of the Works (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Tue 13/2/24**	**Tue 2/4/24**	**NA**	**NA**			**540.5 days**		**0%**
102	ETS1-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Tue 13/2/24	Thu 7/3/24	NA	NA	105	103	540.5 days		0%
103	ETS1-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Thu 7/3/24	Tue 2/4/24	NA	NA	102		540.5 days		0%
104	**ETS1-1200**		**Other Events to Section 1 of the Works (not all)**			**0 days**	**NA**	**NA**	**4 days**	**Fri 9/2/24**	**Tue 13/2/24**	**NA**	**NA**			**540.5 days**		**0%**
105	ETS1-1210		Special working arrangement due to COVID-19 in January 2020			0 days	NA	NA	4 days	Fri 9/2/24	Tue 13/2/24	NA	NA	35	102	540.5 days		0%
106	**ETS2-1000**		**Effects to Section 2 of the Works**			**0 days**	**NA**	**NA**	**53 days**	**Sat 23/7/22**	**Wed 14/9/22**	**NA**	**NA**			**1106.5 days**		**0%**
107	**ETS2-1100**		**Inclement Weather to Section 2 of the Works (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Wed 27/7/22**	**Wed 14/9/22**	**NA**	**NA**			**1106.5 days**		**0%**
108	ETS2-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Wed 27/7/22	Fri 19/8/22	NA	NA	111	109	1106.5 days		0%
109	ETS2-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Fri 19/8/22	Wed 14/9/22	NA	NA	108		1106.5 days		0%
110	**ETS2-1200**		**Other Events to Section 2 of the Works (not all)**			**0 days**	**NA**	**NA**	**4 days**	**Sat 23/7/22**	**Wed 27/7/22**	**NA**	**NA**			**1106.5 days**		**0%**
111	ETS2-1210		Special working arrangement due to COVID-19 in January 2020			0 days	NA	NA	4 days	Sat 23/7/22	Wed 27/7/22	NA	NA	36	108	1106.5 days		0%
112	**ETS3-1000**		**Effects to Section 3 of the Works**			**0 days**	**NA**	**NA**	**53 days**	**Wed 12/6/24**	**Sun 4/8/24**	**NA**	**NA**			**416.5 days**		**0%**
113	**ETS3-1100**		**Inclement Weather to Section 3 of the Works (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Sun 16/6/24**	**Sun 4/8/24**	**NA**	**NA**			**416.5 days**		**0%**
114	ETS3-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Sun 16/6/24	Tue 9/7/24	NA	NA	117	115	416.5 days		0%
115	ETS3-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Tue 9/7/24	Sun 4/8/24	NA	NA	114		416.5 days		0%
116	**ETS3-1200**		**Other Events to Section 3 of the Works (not all)**			**0 days**	**NA**	**NA**	**4 days**	**Wed 12/6/24**	**Sun 16/6/24**	**NA**	**NA**			**416.5 days**		**0%**
117	ETS3-1210		Special working arrangement due to COVID-19 in January 2020			0 days	NA	NA	4 days	Wed 12/6/24	Sun 16/6/24	NA	NA	37	114	416.5 days		0%
118	**SUB-1000**		**Submissions (cal.day)**			**1564 days**	**Mon 18/11/19**	**Wed 28/2/24**	**1956 days**	**Mon 18/11/19**	**Wed 26/3/25**	**Mon 18/11/19**	**NA**			**182 days**		**60%**
119	**SUBS-1000**		**Subletting Package**			**96 days**	**Mon 18/11/19**	**Fri 21/2/20**	**562 days**	**Mon 18/11/19**	**Tue 1/6/21**	**Mon 18/11/19**	**Tue 1/6/21**			**0 days**		**100%**
120	SUBS-1010		Prepare & submit subletting procedure			12 days	Mon 18/11/19	Fri 29/11/19	12 days	Mon 18/11/19	Fri 29/11/19	Mon 18/11/19	Fri 29/11/19	2	121	0 days		100%
121	SUBS-1020		PM review and accept subletting procedure			15 days	Sat 30/11/19	Wed 11/12/19	12 days	Sat 30/11/19	Wed 11/12/19	Sat 30/11/19	Wed 11/12/19	120	142,122,125,124,123	0 days		100%
122	SUBS-1030		Subletting for demolition works			24 days	Thu 12/12/19	Sat 4/1/20	93 days	Tue 17/12/19	Wed 18/3/20	Tue 17/12/19	Wed 18/3/20	121,154	339,462,295,402,539,359	0 days		100%
123	SUBS-1040		Subletting for UU diversion for Inlet Works No.1			24 days	Thu 12/12/19	Sat 4/1/20	78 days	Fri 10/1/20	Fri 27/3/20	Fri 10/1/20	Fri 27/3/20	121	212	0 days		100%
124	SUBS-1050		Subletting for Inspection pit excavation			0 days	NA	NA	56 days	Thu 19/12/19	Wed 12/2/20	Thu 19/12/19	Wed 12/2/20	121,154	214,126	0 days		100%
125	SUBS-1060		Subletting for Preliminary Works (topographic surveying)			14 days	Thu 12/12/19	Wed 25/12/19	54 days	Fri 20/12/19	Tue 11/2/20	Fri 20/12/19	Tue 11/2/20	121,154	159,198,129,130,131,127	0 days		100%
126	SUBS-1070		Subletting for AR3 access road			24 days	Thu 12/12/19	Sat 4/1/20	0 days	Fri 13/12/19	Tue 11/2/20	Fri 13/12/19	Tue 11/2/20	124	127,210	0 days		100%
127	SUBS-1080		Subletting for pre-drilling works			24 days	Thu 12/12/19	Sat 4/1/20	38 days	Thu 6/2/20	Fri 20/3/20	Thu 6/2/20	Fri 20/3/20	125,126	452,342,414,128	0 days		100%
128	SUBS-1090		Subletting for Contractor designer for temporary works and ICE			24 days	Thu 12/12/19	Sat 4/1/20	71 days	Mon 16/12/19	Mon 24/2/20	Mon 16/12/19	Mon 24/2/20	127		0 days		100%
129	SUBS-1100		Subletting for independent BIM consultant			24 days	Thu 12/12/19	4/1/120	0 days	Wed 11/12/19	Thu 23/1/20	Wed 11/12/19	Thu 23/1/20	125	193	0 days		100%
130	SUBS-1110		Subletting for independent BIM services			0 days	NA	NA	15 days	Tue 14/1/20	Wed 26/2/20	Tue 14/1/20	Wed 26/2/20	125	193	0 days		100%
131	SUBS-1120		Subletting for Design, Supply & Install of Temporary Activated Carbon Deodorization Units (E&M Works)			0 days	NA	NA	0 days	Fri 13/12/19	Tue 11/2/20	Fri 13/12/19	Tue 11/2/20	125	132,133	0 days		100%
132	SUBS-1130		Subletting for pre-bored H pile works			36 days	Thu 12/12/19	Thu 16/1/20	45 days	Sun 5/7/20	Tue 18/8/20	Sun 5/7/20	Tue 18/8/20	131	343,415,453,309	0 days		100%
133	SUBS-1140		Subletting for Sheetpile installation works			0 days	NA	NA	45 days	Tue 1/9/20	Thu 15/10/20	Tue 1/9/20	Thu 15/10/20	131	344,455,134,135	0 days		100%
134	SUBS-1150		Subletting for ELS works for Inlet Works No.1			48 days	Sun 5/1/20	Fri 21/2/20	85 days	Fri 16/10/20	Fri 8/1/21	Fri 16/10/20	Fri 8/1/21	133		0 days		100%
135	SUBS-1160		Subletting for ELS works for Membrance Facilities Building and other buildings			48 days	Sun 5/1/20	Fri 21/2/20	85 days	Fri 16/10/20	Fri 8/1/21	Fri 16/10/20	Fri 8/1/21	133	346,389,456,136,137,138,139,140,4	0 days		100%
136	SUBS-1170		Subletting for structural works for Inlet Works Building			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Sat 9/1/21	Thu 25/2/21	Sat 9/1/21	Thu 25/2/21	135		0 days		100%
137	SUBS-1180		Subletting for structural works for Primary Sedimentation Tanks			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Sat 9/1/21	Thu 25/2/21	Sat 9/1/21	Thu 25/2/21	135	348	0 days		100%
138	SUBS-1190		Subletting for structural works for Bioreactors			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Sat 9/1/21	Thu 25/2/21	Sat 9/1/21	Thu 25/2/21	135	391	0 days		100%
139	SUBS-1200		Subletting for structural works for Membrance Facilities Building			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Sat 9/1/21	Thu 25/2/21	Sat 9/1/21	Thu 25/2/21	135	426	0 days		100%
140	SUBS-1210		Subletting for structural works for SAS pumping house and ancillary structures			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Sat 9/1/21	Thu 25/2/21	Sat 9/1/21	Thu 25/2/21	135	141	0 days		100%
141	SUBS-1220		Subletting for ABWF works			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Fri 26/2/21	Wed 14/4/21	Fri 26/2/21	Wed 14/4/21	140	332,350,398,460,488,504,514,522,	0 days		100%
142	SUBS-1230		Subletting for Process Pipeworks, Utilities and Roadworks			48 days	Thu 12/12/19	Tue 28/1/20	150 days	Fri 22/5/20	Sun 18/10/20	Fri 22/5/20	Sun 18/10/20	121	532,549,551,552,553,554,543	0 days		100%
143	SUBS-1240		Subletting for Landscape Hardworks and Softworks			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Thu 15/4/21	Tue 1/6/21	Thu 15/4/21	Tue 1/6/21	141	559,560	0 days		100%
144	SUBS-1250		Subletting for Trial dewatering works and installation of additional stop logs at BR2 connon channel due to malfucntioned of existing penstock at FST no. 5 and 7 (EWN 055)			0 days	NA	NA	15 days	Tue 15/9/20	Tue 29/9/20	Tue 15/9/20	Tue 29/9/20		355	0 days		100%
145	SUBS-1260		Subletting for Diversion of Power supply for existing Slaghter House pump station (CE 034)			0 days	NA	NA	14 days	Mon 21/9/20	Sun 4/10/20	Mon 21/9/20	Sun 4/10/20			0 days		100%
146	SUBS-1270		Subletting for Decommission of exisiting power and signal systems in leachate Pump station switch room (PMI 039)			0 days	NA	NA	14 days	Mon 21/9/20	Sun 4/10/20	Mon 21/9/20	Sun 4/10/20		439	0 days		100%
147	SUBS-1280		Subletting for Diversion of Existing DN250 Leachate Raising Main (PPMI 025)			0 days	NA	NA	31 days	Mon 21/9/20	Wed 21/10/20	Mon 21/9/20	Wed 21/10/20			0 days		100%
148	SUBS-1290		Subletting for Construction of Cable trough for CLP 11kv Cable Diversion (PPMI 041)			0 days	NA	NA	31 days	Mon 21/9/20	Wed 21/10/20	Mon 21/9/20	Wed 21/10/20		453	0 days		100%
149	SUBS-1300		Subletting for Demolition of Existing Pillar box and its concrete plinth (CE 030)			0 days	NA	NA	31 days	Mon 21/9/20	Wed 21/10/20	Mon 21/9/20	Wed 21/10/20		441	0 days		100%
150	SUBS-1310		Subletting for Excavation to locate existing underground cable near SAS Pump Station (PPMI 038)			0 days	NA	NA	31 days	Mon 21/9/20	Wed 21/10/20	Mon 21/9/20	Wed 21/10/20			0 days		100%
151	SUBS-1320		Subletting for Diversion of pumping system sewerage (PPMI 083)			0 days	NA	NA	31 days	Mon 21/9/20	Wed 21/10/20	Mon 21/9/20	Wed 21/10/20		446	0 days		100%
152	**SUBA-1000**		**Statutory Submission, Submission and Approval**			**1564 days**	**Mon 18/11/19**	**Wed 28/2/24**	**1956 days**	**Mon 18/11/19**	**Wed 26/3/25**	**Mon 18/11/19**	**NA**			**182 days**		**49%**
153	SUBA-1010		Liaison with operator of SWHSTW and obtain their consent of associated method statement of major activities			0 days	NA	NA	1584 days	Mon 18/11/19	Wed 26/3/25	Mon 18/11/19	NA	2	59FF	156 days		30%
154	SUBA-1020		Prepare and submit Subcontractor Management Plan (SMP)			24 days	Mon 18/11/19	Wed 11/12/19	24 days	Mon 18/11/19	Wed 11/12/19	Mon 18/11/19	Wed 11/12/19	2	122,125,124	0 days		100%
155	SUBA-1030		Prepare and submit Interface Management Plan			36 days	Mon 18/11/19	Mon 23/12/19	36 days	Mon 18/11/19	Mon 23/12/19	Mon 18/11/19	Mon 23/12/19	2		0 days		100%
156	SUBA-1040		Prepare and submit the TTA plans inside Treatment Plant for UU diversion and buildings construction			24 days	Mon 18/11/19	Wed 11/12/19	24 days	Mon 18/11/19	Wed 11/12/19	Mon 18/11/19	Wed 11/12/19	2	201	0 days		100%
157	SUBA-1050		Prepare and submit method statement for UU diversion for Inlet Works No.1			12 days	Mon 18/11/19	Fri 29/11/19	12 days	Mon 18/11/19	Fri 29/11/19	Mon 18/11/19	Fri 29/11/19	2	158	0 days		100%
158	SUBA-1060		PM review and accept the method statement			12 days	Sat 30/11/19	Wed 11/12/19	0 days	Sat 30/11/19	Wed 11/12/19	Sat 30/11/19	Wed 11/12/19	157	213,214	0 days		100%
159	SUBA-1070		Prepare and submit combine underground services drawing for PM's review the alignment			24 days	Thu 26/12/19	Sat 18/1/20	23 days	Thu 26/12/19	Sat 18/1/20	Thu 26/12/19	Sat 18/1/20	125		0 days		100%
160	SUBA-1080		Prepare and submit method statement for demolition existing structures			24 days	Mon 18/11/19	Wed 11/12/19	66 days	Mon 18/11/19	Wed 22/1/20	Mon 18/11/19	Wed 22/1/20	2	402,339,462,295,539	0 days		100%
161	SUBA-1090		Prepare and submit method statement for structural works for buildings			24 days	Mon 18/11/19	Wed 11/12/19	197 days	Mon 18/11/19	Mon 1/6/20	Mon 18/11/19	Mon 1/6/20	2		0 days		100%
162	SUBA-1100		Prepare and submit method statements to MTRC regarding the works within railing protection boundary			36 days	Mon 18/11/19	Mon 23/12/19	92 days	Sat 1/2/20	Mon 25/5/20	Sat 1/2/20	Mon 25/5/20	2	339,462,539,359	0 days		100%
163	SUBA-1110		Prepare and submit & approve Safety Management Plan			24 days	Mon 18/11/19	Wed 11/12/19	3 days	Mon 18/11/19	Wed 20/11/19	Mon 18/11/19	Wed 20/11/19	2		0 days		100%
164	SUBA-1120		Prepare and submit Excavation and lateral support (ELS) proposal			24 days	Mon 10/2/20	Wed 4/3/20	128 days	Mon 10/2/20	Tue 16/6/20	Mon 10/2/20	Tue 16/6/20	2		0 days		100%
165	SUBA-1120a		Prepare and submit Excavation and lateral support (ELS) proposal for Inlet Works No.1			0 days	NA	NA	24 days	Wed 29/9/21	Sat 23/10/21	NA	NA	314SF		1433 days		0%
166	SUBA-1120b		Prepare and submit Excavation and lateral support (ELS) proposal for Primnary Sedimentation tanks No.1-4			0 days	NA	NA	24 days	Fri 1/7/22	Mon 25/7/22	NA	NA	346SF		1158 days		0%
167	SUBA-1120c		Prepare and submit Excavation and lateral support (ELS) proposal for Bioreactor No. 2A&2B			0 days	NA	NA	24 days	Sun 15/5/22	Wed 8/6/22	NA	NA	389SF		1205 days		0%
168	SUBA-1130		Prepare and submit Dewatering proposal for basement construction			24 days	Mon 10/2/20	Wed 4/3/20	165 days	Mon 10/2/20	Thu 23/7/20	Mon 10/2/20	Thu 23/7/20	2		0 days		100%
169	SUBA-1130a		Prepare and submit Dewatering proposal for basement construction for Inlet Works No.1			0 days	NA	NA	24 days	Wed 29/9/21	Sat 23/10/21	NA	NA	314SF		1433 days		0%



ID	Activity ID	Key Date	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
170	SUBA-1130b		Prepare and submit Dewatering proposal for basement construction for Primnary Sedimentation tanks No.1-4			0 days	NA	NA	24 days	Fri 1/7/22	Mon 25/7/22	NA	NA	346SF		1158 days		0%
171	SUBA-1130c		Prepare and submit Dewatering proposal for basement construction for Bioreactor No. 2A&2B			0 days	NA	NA	24 days	Sun 15/5/22	Wed 8/6/22	NA	NA	389SF		1205 days		0%
172	SUBA-1140		Prepare and submit Pre-construction condition survey of existing structures/ services			24 days	Wed 5/2/20	Fri 28/2/20	0 days	Mon 18/11/19	Fri 6/3/20	Mon 18/11/19	Fri 6/3/20	198		0 days		100%
173	SUBA-1150		Prepare and submit Settlement and movement monitoring proposal of existing structures/ services			24 days	Wed 5/2/20	Fri 28/2/20	110 days	Mon 18/11/19	Fri 6/3/20	Mon 18/11/19	Fri 6/3/20	198FS+120 days		0 days		100%
174	SUBA-1160		Prepare and submit design of structure elements of the temporary activated carbon deodourization unit			60 days	Fri 17/1/20	Mon 16/3/20	60 days	Mon 18/11/19	Mon 16/3/20	Mon 18/11/19	Mon 16/3/20	2FS+60 days		0 days		100%
175	SUBA-1170		Prepare of RSE and structural design for alternation and additional (A&A) works at Membrane Facilities Building No.1			180 days	Mon 18/10/21	Fri 15/4/22	180 days	Mon 18/10/21	Fri 15/4/22	NA	NA	NA	541	332 days		0%
176	SUBA-1180		Prepare of RSE and structural design for alternation and additional (A&A) works at Main Power House			44 days	Wed 15/7/20	Thu 3/9/20	60 days	Mon 6/7/20	Thu 3/9/20	Mon 6/7/20	Thu 3/9/20		539	0 days		100%
177	**SUBE-1000**		**Environmental Aspect Submissions**			**45 days**	**Mon 18/11/19**	**Wed 1/1/20**	**81 days**	**Mon 18/11/19**	**Thu 6/2/20**	**Mon 18/11/19**	**Thu 6/2/20**			**0 days**		**100%**
178	SUBE-1010		Prepare, submit & approve Site Management Plan for Trip Tricket System			45 days	Mon 18/11/19	Wed 1/1/20	66 days	Mon 18/11/19	Wed 22/1/20	Mon 18/11/19	Wed 22/1/20	2		0 days		100%
179	SUBE-1020		Prepare, submit & approve Waste Management Plan			45 days	Mon 18/11/19	Wed 1/1/20	81 days	Mon 18/11/19	Thu 6/2/20	Mon 18/11/19	Thu 6/2/20	2		0 days		100%
180	SUBE-1030		Prepare, submit & approve Environmental Management Plan			45 days	Mon 18/11/19	Wed 1/1/20	66 days	Mon 18/11/19	Wed 22/1/20	Mon 18/11/19	Wed 22/1/20	2		0 days		100%
181	**SUBP-1000**		**Procurement**			**731 days**	**Mon 18/11/19**	**Wed 17/11/21**	**648 days**	**Mon 18/11/19**	**Thu 26/8/21**	**Mon 18/11/19**	**NA**			**278 days**		**94%**
182	SUBP-1010		Prepare and submit the Procurement Procedure			12 days	Mon 18/11/19	Fri 29/11/19	2 days	Mon 18/11/19	Tue 19/11/19	Mon 18/11/19	Tue 19/11/19	2	183	0 days		100%
183	SUBP-1020		PM Review & Accept Procurement Procedure			12 days	Sat 30/11/19	Wed 11/12/19	21 days	Tue 19/11/19	Tue 10/12/19	Tue 19/11/19	Tue 10/12/19	182	184,185,186,187,188,189,190,191	0 days		100%
184	SUBP-1030		Prepare, submit and approve the pipe works material			25 days	Thu 12/12/19	Sun 5/1/20	34 days	Thu 6/2/20	Tue 10/3/20	Thu 6/2/20	Tue 10/3/20	183	212,532,551,552,554,553,549,557,5	0 days		100%
185	SUBP-1040		Prepare, submit and approve the water proofing material			25 days	Thu 12/12/19	Sun 5/1/20	25 days	Mon 2/8/21	Thu 26/8/21	NA	NA	183	329,325	278 days		0%
186	SUBP-1050		Prepare, submit and approve the concrete mix material			48 days	Thu 12/12/19	Tue 28/1/20	90 days	Mon 3/2/20	Sat 2/5/20	Mon 3/2/20	Sat 2/5/20	183	391,426	0 days		100%
187	SUBP-1060		Prepare, submit and approve the rebar material			48 days	Thu 12/12/19	Tue 28/1/20	49 days	Sat 23/5/20	Fri 10/7/20	Sat 23/5/20	Fri 10/7/20	183	391,426	0 days		100%
188	SUBP-1070		Prepare, submit and approve the metal works material			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Tue 1/9/20	Sun 18/10/20	Tue 1/9/20	Sun 18/10/20	183	391,426	0 days		100%
189	SUBP-1080		Prepare, submit and approve the ABWF works material			48 days	Sat 12/12/20	Tue 28/1/20	48 days	Mon 1/3/21	Sat 17/4/21	Mon 1/3/21	Sat 17/4/21	183	332,350,398,460,488,504,514,522,4	0 days		100%
190	SUBP-1090		Prepare, submit and approve the protective lining to concrete			0 days	NA	NA	48 days	Tue 1/9/20	Sun 18/10/20	Tue 1/9/20	Sun 18/10/20	183	391,426	0 days		100%
191	SUBP-1100		Prepare, submit and approve the multi-part covers			0 days	NA	NA	21 days	Tue 5/5/20	Mon 25/5/20	Tue 5/5/20	Mon 25/5/20	183		0 days		100%
192	**SUBB-1000**		**BIM**			**1205 days**	**Thu 6/2/20**	**Wed 28/2/24**	**1562 days**	**Mon 18/11/19**	**Fri 28/2/25**	**Mon 18/11/19**	**NA**			**178 days**		**27%**
193	SUBB-1010		Prepare, submit and approve the proposal of details of Common data environment (CDE)			48 days	Thu 6/2/20	Wed 1/4/20	37 days	Mon 18/11/19	Wed 1/4/20	Mon 18/11/19	Wed 1/4/20	129,130	194	0 days		100%
194			Prepare and submit BIM submission			1484 days	Thu 6/2/20	Wed 28/2/24	1451 days	Thu 2/4/20	Fri 28/2/25	Thu 2/4/20	NA	193		178 days		25%
195	**C-1000**	*	**Construction Works (Working day)**			**1957 days**	**Mon 18/11/19**	**Thu 27/3/25**	**2138 days**	**Mon 18/11/19**	**Wed 24/9/25**	**Mon 18/11/19**	**NA**			**0 days**		**51%**
196	**CPW-1000**		**Preliminary Works**			**109 days**	**Mon 18/11/19**	**Thu 5/3/20**	**121 days**	**Mon 18/11/19**	**Tue 17/3/20**	**Mon 18/11/19**	**Tue 17/3/20**			**0 days**		**100%**
197	CPW-1000		Initial Survey			24 days	Mon 18/11/19	Sat 14/12/19	10 days	Mon 18/11/19	Thu 28/11/19	Mon 18/11/19	Thu 28/11/19	2	198	0 days		100%
198	CPW-2000		Condition Survey			30 days	Fri 27/12/19	Tue 4/2/20	89 days	Mon 18/11/19	Fri 6/3/20	Mon 18/11/19	Fri 6/3/20	125,197	199,172,173FS+120 days,200	0 days		100%
199	CPW-3000		Installation of Monitoring Markers			26 days	Wed 5/2/20	Thu 5/3/20	78 days	Fri 29/11/19	Thu 5/3/20	Fri 29/11/19	Thu 5/3/20	198		0 days		100%
200	CPW-4000		Tree Felling Works		22, 235	0 days	NA	NA	9 days	Sat 7/3/20	Tue 17/3/20	Sat 7/3/20	Tue 17/3/20	198		0 days		100%
201	**CAR-0000**	*	**Access Road (AR3), B-1**			**193 days**	**Mon 20/1/20**	**Sat 12/9/20**	**238 days**	**Thu 12/12/19**	**Wed 30/9/20**	**Thu 12/12/19**	**Wed 30/9/20**	**4,156**		**0 days**		**100%**
202	CAR-1000		Site setup and clearance wroks		05	28 days	Mon 20/1/20	Mon 24/2/20	38 days	Mon 20/1/20	Fri 6/3/20	Mon 20/1/20	Fri 6/3/20		203	0 days		100%
203	CAR-1001		Awaiting for AECOM instruction for alignment confirmation for road works		055	0 days	NA	NA	5 days	Mon 17/2/20	Thu 12/3/20	Mon 17/2/20	Thu 12/3/20	202	204	0 days		100%
204	CAR-1002		Additional Works in Access Road AR3 to Settle Left-in Material by Contract DC/2016/07		215-1	0 days	NA	NA	4 days	Thu 21/5/20	Mon 25/5/20	Thu 21/5/20	Mon 25/5/20	203	205	0 days		100%
205	CAR-2000		Drainage and Utilities Works			76 days	Fri 6/3/20	Tue 9/6/20	75 days	Sat 7/3/20	Tue 9/6/20	Sat 7/3/20	Tue 9/6/20	204	206	0 days		100%
206	CAR-2000a		Trimming of Existing Sheet Piles in Access Road AR3		215-2	0 days	NA	NA	20 days	Tue 14/7/20	Wed 5/8/20	Tue 14/7/20	Wed 5/8/20	205	207	0 days		100%
207	CAR-2000b		Installation of Multi-part Cover and Manhole Cover of Chamber RP6 and Associated Concreting Works in Portion B-1		215	0 days	NA	NA	7 days	Fri 28/8/20	Fri 4/9/20	Fri 28/8/20	Fri 4/9/20	206	208	0 days		100%
208	CAR-2001		Diversion of Existing Underground Cables in Portion B-1A		036	0 days	NA	NA	172 days	Thu 5/3/20	Wed 30/9/20	Thu 5/3/20	Wed 30/9/20	207	210	0 days		100%
209	CAR-2002		Additional U-channel, beam barrier and footway concrete pavement		055	0 days	NA	NA	60 days	Thu 12/12/19	Wed 26/2/20	Thu 12/12/19	Wed 26/2/20		210	0 days		100%
210	CAR-3000	KD1A	Roadworks			80 days	Wed 10/6/20	Sat 12/9/20	133 days	Fri 24/4/20	Wed 30/9/20	Fri 24/4/20	Wed 30/9/20	126,209,208	42FF	0 days		100%
211	**CIW-0000**	*	**Inlet Works No.1, B-2**			**854 days**	**Mon 6/1/20**	**Mon 21/11/22**	**594 days**	**Tue 26/11/19**	**Thu 25/11/21**	**Tue 26/11/19**	**NA**			**0 days**		**88%**
212	**CIW-1000**		**Diversion Works (1. Inlet Trunk Sewer, Leachate Rising Mains, Sludge Pipes, Tank Drains and Pipelines near Primary Sludge Thinkeners)**			**180 days**	**Mon 6/1/20**	**Fri 14/8/20**	**459 days**	**Tue 26/11/19**	**Wed 16/6/21**	**Tue 26/11/19**	**NA**	**184,123**	**44FF**	**111 days**		**88%**
213	CIW-1100		Utilities scanning to idenify existing UU arrangement			12 days	Mon 6/1/20	Sat 18/1/20	0 days	Fri 13/12/19	Sat 18/1/20	Fri 13/12/19	Sat 18/1/20	158	214SS,216	0 days		100%
214	CIW-1200		Trial pits to locate the collection points			24 days	Mon 6/1/20	Wed 5/2/20	0 days	Mon 6/1/20	Tue 10/3/20	Mon 6/1/20	Tue 10/3/20	158,213SS,124	232,251	0 days		100%
215	**CIW-1300**		**Installation and Commissioning of Temporary Activated Carbon Deodorization Unit for the Existing Inlet Works**			**0 days**	**NA**	**NA**	**98 days**	**Wed 11/3/20**	**Sat 11/7/20**	**Wed 11/3/20**	**Sat 11/7/20**			**0 days**		**100%**
216	CIW-1310		Construction of concrete plinth			0 days	NA	NA	24 days	Wed 11/3/20	Wed 8/4/20	Wed 11/3/20	Wed 8/4/20	213	217	0 days		100%
217	CIW-1320		Installation of Deodorizer			0 days	NA	NA	40 days	Thu 9/4/20	Sat 30/5/20	Thu 9/4/20	Sat 30/5/20	216	218	0 days		100%
218	CIW-1330		Testing & commissioning			0 days	NA	NA	15 days	Mon 1/6/20	Wed 17/6/20	Mon 1/6/20	Wed 17/6/20	217	219FS-1 day	0 days		100%
219	CIW-1340		Demolishment of the existing carbon deodorization unit			0 days	NA	NA	20 days	Wed 17/6/20	Sat 11/7/20	Wed 17/6/20	Sat 11/7/20	218FS-1 day		0 days		100%
220	**CIW-1400**		**Diversion of Inlet Trunk Sewer (approx. 40m 1800mm dia concrete pipe, 4 deep manholes and Inlet Reception Chamber)**			**146 days**	**Thu 6/2/20**	**Mon 3/8/20**	**451 days**	**Mon 9/3/20**	**Mon 13/9/21**	**Mon 9/3/20**	**NA**			**0 days**		**97%**
221	CIW-1405		Joint Initial Survey arrangement with MTRCL			0 days	NA	NA	24 days	Thu 19/11/20	Wed 16/12/20	Thu 19/11/20	Wed 16/12/20		222	0 days		100%
222	CIW-1410		Remedial Works for uncharted sludge Pipe leakage		41	0 days	NA	NA	8 days	Mon 9/3/20	Tue 17/3/20	Mon 9/3/20	Tue 17/3/20	221	223	0 days		100%
223	CIW-1420		Diversion of uncharted DN250 sludge pipe		41	0 days	NA	NA	27 days	Tue 31/3/20	Thu 7/5/20	Tue 31/3/20	Thu 7/5/20	222	230,224,225	0 days		100%
224	CIW-1421		Diversion of uncharted 2' water pipe		24	0 days	NA	NA	9 days	Wed 15/4/20	Fri 24/4/20	Wed 15/4/20	Fri 24/4/20	223	230	0 days		100%
225	CIW-1422		Additional Underground Utility Scanning for existing sludge pipe		32	0 days	NA	NA	1 day	Sat 18/4/20	Sat 18/4/20	Sat 18/4/20	Sat 18/4/20	223		0 days		100%
226	CIW-1423		HV Cable Diversion for Inlet Works		84	0 days	NA	NA	135 days	Sat 10/10/20	Wed 24/3/21	Sat 10/10/20	Wed 24/3/21			0 days		100%
227	CIW-1423a		Exposing, Removal and Diversion of Existing Cables near Inlet Works No. 1		236	0 days	NA	NA	268 days	Mon 4/5/20	Wed 24/3/21	Mon 4/5/20	Wed 24/3/21			0 days		100%
228	CIW-1424		Diversion of Existing Sludge Rising Main and Sewerage System		81	0 days	NA	NA	102 days	Mon 28/9/20	Sat 30/1/21	Mon 28/9/20	Sat 30/1/21		307,309,279,280	0 days		100%
229	CIW-1425		Demolition of Deodorization System and Facilities between Existing Primary Sludge Thickeners and Primary Sludge Pump Pit		037	0 days	NA	NA	1 day	Fri 28/8/20	Fri 28/8/20	Fri 28/8/20	Fri 28/8/20			0 days		100%
230	CIW-1430		Removal of concrete surround and uncharted sludge pipe		030	0 days	NA	NA	20 days	Fri 24/4/20	Tue 19/5/20	Fri 24/4/20	Tue 19/5/20	223,224	231	0 days		100%
231	CIW-1440		Remedial works for uncharted pipe and unforeseen water seepage		273	0 days	NA	NA	10 days	Fri 8/5/20	Tue 19/5/20	Fri 8/5/20	Tue 19/5/20	230	232,233	0 days		100%
232	**CIW-1450**		**Trench Excavation for 1800mm dia pipeline and manholes**			**146 days**	**Thu 6/2/20**	**Mon 3/8/20**	**238 days**	**Wed 11/3/20**	**Mon 28/12/20**	**Wed 11/3/20**	**Mon 28/12/20**	**214,231**		**0 days**		**100%**
233	CIW-1450a		Sheetpile installation (on hold due to identification of uncharted obstruction)		28	0 days	NA	NA	80 days	Wed 11/3/20	Thu 18/6/20	Wed 11/3/20	Thu 18/6/20	231	234	0 days		100%
234	CIW-1450b		Trench Excavation for 1800mm dia pipeline and manholes			45 days	Thu 6/2/20	Sat 28/3/20	22 days	Thu 18/6/20	Wed 15/7/20	Thu 18/6/20	Wed 15/7/20	233	235,247	0 days		100%
235	CIW-1450c		Identification of uncharted concrete surround and pipes near MHA01		28	0 days	NA	NA	29 days	Thu 16/7/20	Tue 18/8/20	Thu 16/7/20	Tue 18/8/20	234	238,243,247	0 days		100%
236	CIW-1450d		Removal of existing DSD drawpits near IRC & exposure of CLP cables with installation of additional temporary support		215-2	0 days	NA	NA	26 days	Thu 16/7/20	Fri 14/8/20	Thu 16/7/20	Fri 14/8/20			0 days		100%
237	CIW-1450e		Removal of uncharted concrete surround and pipes near MHA01 and Sheetpile installation		(045)	0 days	NA	NA	10 days	Fri 7/8/20	Tue 18/8/20	Fri 7/8/20	Tue 18/8/20		238,243	0 days		100%
238	CIW-1450f		Revised type of pipe bedding between Manholes no. MHA01 and MHA02		096	0 days	NA	NA	6 days	Sat 3/10/20	Fri 9/10/20	Sat 3/10/20	Fri 9/10/20	237,235	239	0 days		100%
239	CIW-1450g		Replace top soil with Grade 200 Rockfill below Formation level of the proposed pipe between MHA01 and MHA02		079	0 days	NA	NA	3 days	Mon 10/8/20	Wed 12/8/20	Mon 10/8/20	Wed 12/8/20	238	241	0 days		100%
240	CIW-1450h		Grade 200 Rockfill in ELS cofferdam of IRC		(161)	0 days	NA	NA	3 days	Wed 23/12/20	Mon 28/12/20	Wed 23/12/20	Mon 28/12/20		241	0 days		100%
241	CIW-1451		Construct M/H MHA01, MHA02, MHA04 and Inlet Reception Chamber			65 days	Mon 30/3/20	Fri 19/6/20	395 days	Wed 20/5/20	Mon 13/9/21	Wed 20/5/20	NA	239,243,242,244,240	283	-135 days		91%
242	CIW-1452		Enlarged size of Manhole MHA02		052	0 days	NA	NA	6 days	Tue 1/9/20	Mon 7/9/20	Tue 1/9/20	Mon 7/9/20		241	0 days		100%
243	CIW-1453		Additional Works for Manhole MHA01 Construction and Pipe Connection to Manhole MHA01		(094) (146)	0 days	NA	NA	160 days	Wed 16/9/20	Wed 31/3/21	Wed 16/9/20	Wed 31/3/21	235,237	241	0 days		100%
244	CIW-1454		Additional Works for IRC and Pipe Connection to IRC from Existing Manhole FMH1004115		(096)	0 days	NA	NA	17 days	Fri 18/9/20	Fri 9/10/20	Fri 18/9/20	Fri 9/10/20		245,247,241	0 days		100%
245	CIW-1455		Removal of left-in sheetpiles at IRC		381	0 days	NA	NA	3 days	Mon 19/10/20	Wed 21/10/20	Mon 19/10/20	Wed 21/10/20	244		0 days		100%
246	CIW-1456		Compliance Test for DN1800 Precast Concrete Pipe		065	0 days	NA	NA	1 day	Fri 18/9/20	Fri 18/9/20	Fri 18/9/20	Fri 18/9/20			0 days		100%
247	CIW-1457		Lay 1800mm dia concretre pipe			24 days	Sat 20/6/20	Mon 20/7/20	88 days	Thu 17/9/20	Mon 25/1/21	Thu 17/9/20	Mon 25/1/21	234,235,244	248	0 days		100%
248	CIW-1458		Connection to existing Inlet Chamber			12 days	Tue 21/7/20	Mon 3/8/20	12 days	Tue 26/1/21	Mon 8/2/21	Tue 26/1/21	Mon 8/2/21	247	307,44FF	0 days		100%
249	**CIW-1500**		**Diversion of Leachate Rising Main, Sludge Pipes and Tank Drain**			**150 days**	**Thu 6/2/20**	**Fri 7/8/20**	**594 days**	**Tue 26/11/19**	**Thu 25/11/21**	**Tue 26/11/19**	**NA**			**-99 days**		**94%**
250	**CIW-1510**	**KD1B**	**Diversion of Tank Drain MHD9.5 (approx. 70m CHES1 & CHES2)**			**150 days**	**Thu 6/2/20**	**Fri 7/8/20**	**406 days**	**Tue 26/11/19**	**Mon 12/4/21**	**Tue 26/11/19**	**Sat 10/4/21**	**278**	**307,44FF**	**0 days**		**100%**
251	**CIW-1500a**		**Diversion of Tank Drain MHD9.5 to MHA04 (approx. 70m 675mm dia conrete pipe, 24m DN250 DI leachate rising main, 90m CHES1&S2 DN250 CI)**			150 days	Thu 6/2/20	Fri 7/8/20	**406 days**	**Tue 26/11/19**	**Mon 12/4/21**	**Tue 26/11/19**	**Sat 10/4/21**	**214**		**0 days**		**100%**

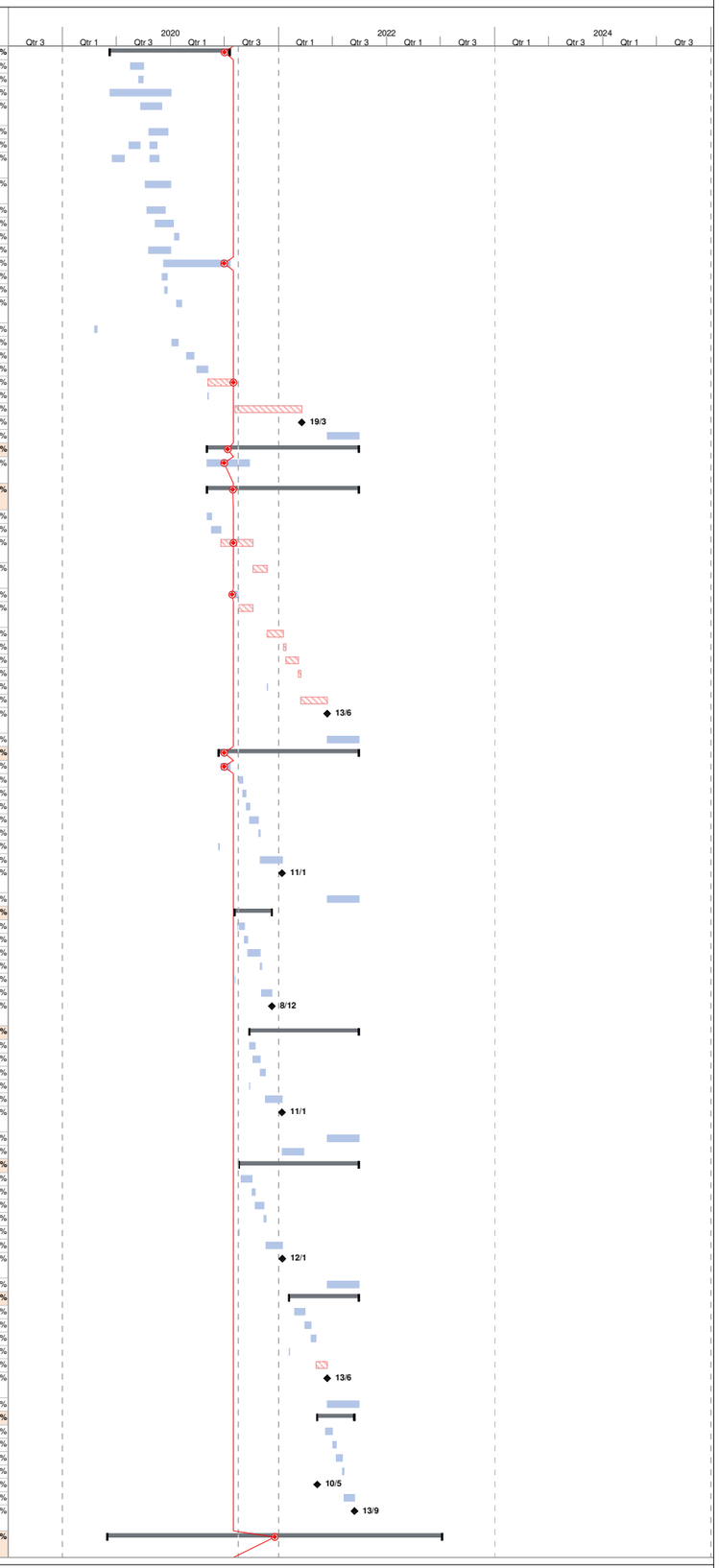


ID	Activity ID	Key Date	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
252	CIW-1500b		Joint Initial Survey arrangement with MTRCL			0 days	NA	NA	158 days	Tue 26/11/19	Wed 10/6/20	Tue 26/11/19	Wed 10/6/20			0 days		100%
253	CIW-1500c		Site Clearance & inspection pit excavation under conforming alignments			0 days	NA	NA	36 days	Fri 12/6/20	Sat 25/7/20	Fri 12/6/20	Sat 25/7/20			0 days		100%
254	**CIW-1511**		**Tank Drain Diversion near MTRCL track**			**0 days**	**NA**	**NA**	**248 days**	**Thu 11/6/20**	**Mon 12/4/21**	**Thu 11/6/20**	**Sat 10/4/21**			**0 days**		**100%**
255	CIW-1511a		Excavation of trial pit near MHD9.5 (TP45 & 47)		040	0 days	NA	NA	12 days	Mon 27/7/20	Sat 8/8/20	Mon 27/7/20	Sat 8/8/20		256,260	0 days		100%
256	CIW-1511b		Uncharted cables found near MTRC track and identification			0 days	NA	NA	1 day	Thu 18/6/20	Thu 18/6/20	Thu 18/6/20	Thu 18/6/20	255		0 days		100%
257	CIW-1511c		Excavation of trial pit near MHD8.5			0 days	NA	NA	5 days	Fri 19/6/20	Wed 24/6/20	Fri 19/6/20	Wed 24/6/20		258	0 days		100%
258	CIW-1511d		Lower the ground surface, opening and additional trial pit (TP38)		(046)	0 days	NA	NA	60 days	Thu 11/6/20	Fri 21/8/20	Thu 11/6/20	Fri 21/8/20	257	259	0 days		100%
259	CIW-1511e		Excavation of Trial Pits near Manhole MHA04 and MH09		040	0 days	NA	NA	60 days	Thu 11/6/20	Fri 21/8/20	Thu 11/6/20	Fri 21/8/20	258		0 days		100%
260	CIW-1511f		Additional Trial Pit between MHD9.5 and MHA04		040	0 days	NA	NA	25 days	Fri 21/8/20	Fri 18/9/20	Fri 21/8/20	Fri 18/9/20	255		0 days		100%
261	CIW-1511g		Sheetpile installation for MHD9.5			0 days	NA	NA	38 days	Tue 1/9/20	Fri 16/10/20	Tue 1/9/20	Fri 16/10/20			0 days		100%
262	CIW-1511h		Sheetpile installation between MHD9.5 & MHA04			0 days	NA	NA	25 days	Tue 8/9/20	Thu 8/10/20	Tue 8/9/20	Thu 8/10/20			0 days		100%
263	CIW-1511i		UU supporting & ELS works& excavatuib between MHD9.5 & MHA04			0 days	NA	NA	73 days	Wed 7/10/20	Mon 4/1/21	Wed 7/10/20	Mon 4/1/21			0 days		100%
264	CIW-1511j		Unsuit excavated material from MHD9.5 to MHA04		261	0 days	NA	NA	4 days	Fri 20/11/20	Tue 24/11/20	Fri 20/11/20	Tue 24/11/20			0 days		100%
265	CIW-1511k		Revise design of manhole MHD9.5		(167)	0 days	NA	NA	20 days	Thu 7/1/21	Fri 29/1/21	Thu 7/1/21	Fri 29/1/21			0 days		100%
266	CIW-1511l		Break up opening and plugging existing concrete pipe at MHD9.5			0 days	NA	NA	6 days	Mon 18/1/21	Sat 23/1/21	Mon 18/1/21	Sat 23/1/21			0 days		100%
267	CIW-1511l1		Trimming existing concrete pipe at MHD9.5			0 days	NA	NA	13 days	Fri 22/1/21	Fri 5/2/21	Fri 22/1/21	Fri 5/2/21			0 days		100%
268	CIW-1511l2		Construction of manhole MHD9.5			0 days	NA	NA	49 days	Sat 6/2/21	Sat 10/4/21	Sat 6/2/21	Sat 10/4/21			0 days		100%
269	CIW-1511m		Additional work to prevent backflow from MHI1 to MHD9.5		(176)	0 days	NA	NA	9 days	Mon 18/1/21	Wed 27/1/21	Mon 18/1/21	Wed 27/1/21			0 days		100%
270	CIW-1511n		Sewage overflow incident of MHD11		(180)	0 days	NA	NA	9 days	Sat 13/2/21	Thu 25/2/21	Sat 13/2/21	Thu 25/2/21			0 days		100%
271	CIW-1512		Additional Special manhole for tank drain (NCE)			0 days	NA	NA	35 days	Mon 24/8/20	Mon 5/10/20	Mon 24/8/20	Mon 5/10/20		272,273	0 days		100%
272	CIW-1513		Breaking of concrete surround of cables (0.8mx0.8mx70m) (NCE)			0 days	NA	NA	24 days	Tue 8/9/20	Wed 7/10/20	Tue 8/9/20	Wed 7/10/20	271		0 days		100%
273	CIW-1514	KD1B	Construction of tank drain along revised alignment w/ concrete surround		051	0 days	NA	NA	10 days	Tue 5/1/21	Fri 15/1/21	Tue 5/1/21	Fri 15/1/21	271	43FF,307	0 days		100%
274	CIW-1516		Backfilling trench between MHD9.5 & MHA04			0 days	NA	NA	20 days	Sat 16/1/21	Mon 8/2/21	Sat 16/1/21	Mon 8/2/21			0 days		100%
275	**CIW-1520**		**Diversion of Sludge Pipes**			75 days	Tue 21/4/20	Tue 21/7/20	**364 days**	**Mon 11/5/20**	**Thu 29/7/21**	**Mon 11/5/20**	**NA**			**0 days**		**96%**
276	CIW-1520a		Excavation of trial pit and identification of connection point		351	0 days	NA	NA	103 days	Mon 11/5/20	Wed 9/9/20	Mon 11/5/20	Wed 9/9/20		277	0 days		100%
277	CIW-1520b		Trench excavation for twin DN250 sludge pipe ,on hold due to encounter of uncharted sludge pipe		351	75 days	Tue 21/4/20	Tue 21/7/20	4 days	Wed 15/7/20	Sat 18/7/20	Wed 15/7/20	Sat 18/7/20	276	278	0 days		100%
278	CIW-1520c		Additional hole drilling works and identification of connetion point			0 days	NA	NA	53 days	Mon 20/7/20	Fri 18/9/20	Mon 20/7/20	Fri 18/9/20	277	250	0 days		100%
279	CIW-1520d		Temporary diversion of substandard DI 250 Leachate raising main		202	0 days	NA	NA	127 days	Tue 20/10/20	Wed 24/3/21	Tue 20/10/20	Wed 24/3/21	228		0 days		100%
280	CIW-1520e		Protection work for substandard DI 500 tank drain Pipe (near MHD 9.5)		302	0 days	NA	NA	93 days	Wed 18/11/20	Fri 12/3/21	Wed 18/11/20	Fri 12/3/21	228		0 days		100%
281	CIW-1520f		Encounter of uncharted concrete pipe within sheetpile cofferdam at MHA04			0 days	NA	NA	2 days	Tue 10/11/20	Wed 11/11/20	Tue 10/11/20	Wed 11/11/20		282	0 days		100%
282	CIW-1520g		Resumption and construction of sludge pipe construction			0 days	NA	NA	253 days	Sat 19/9/20	Thu 29/7/21	Sat 19/9/20	NA	281	307,44FF	-36 days		91%
283	CIW-1530		Diversion of Leachate Rising Main			60 days	Tue 21/4/20	Fri 3/7/20	60 days	Tue 14/9/21	Thu 25/11/21	NA	NA	241		-135 days		0%
284	**CIW-1600**		**Diversion of pipelines near Primary Sludge Thickeners (approx. 180m long 150mm to 375mm concrete pipes)**			**156 days**	**Thu 6/2/20**	**Fri 14/8/20**	**570 days**	**Tue 26/11/19**	**Thu 28/10/21**	**Tue 26/11/19**	**NA**			**0 days**		**55%**
285	CIW-1610		~~Trench Excavation from M/H MHD1E to MHD5 (approx. 90m long with M/Hs MHD1A, 1B, 1C, 1D & 1E) - realigned~~		87	~~60 days~~	~~Thu 6/2/20~~	~~Mon 20/4/20~~	~~0 days~~	~~Tue 26/11/19~~	~~Tue 26/11/19~~	~~Tue 26/11/19~~	~~Tue 26/11/19~~			0 days		100%
286	~~CIW-1620~~		~~Manholes construction and Pipe laying - omitted~~		87	~~60 days~~	~~Mon 30/3/20~~	~~Sat 13/6/20~~	~~0 days~~	~~Tue 2/6/20~~	~~Tue 2/6/20~~	~~Tue 2/6/20~~	~~Tue 2/6/20~~		~~43FF,291~~	~~0 days~~		~~100%~~
287	CIW-1621		Temporary Diversion of Existing DN200 Filitrate Rising Main		034	0 days	NA	NA	20 days	Sat 1/8/20	Mon 24/8/20	Sat 1/8/20	Mon 24/8/20		288	0 days		100%
288	CIW-1623		Pipeline Diversion Works near Primary Sludge Thickening Tank		(114)	0 days	NA	NA	30 days	Fri 16/4/21	Sat 22/5/21	Fri 16/4/21	Sat 22/5/21	287	289	0 days		100%
289	CIW-1625		Uncharted underground utilities near Proposed MHD5B		0260	0 days	NA	NA	26 days	Mon 24/5/21	Wed 23/6/21	Mon 24/5/21	Wed 23/6/21	288	290,293	0 days		100%
290	CIW-1630		Trench Excavation from M/H (approx. 90m long with M/Hs M1A to M3B)			60 days	Tue 21/4/20	Fri 3/7/20	32 days	Thu 19/3/20	Wed 29/4/20	Thu 19/3/20	Wed 29/4/20	289	291,292	0 days		100%
291	CIW-1640		Manholes construction (M1A, M1B, M2B, M3B) and Pipe laying			25 days	Mon 15/6/20	Wed 15/7/20	12 days	Mon 4/5/20	Sat 16/5/20	Mon 4/5/20	Sat 16/5/20	290,286	43FF	0 days		100%
292	CIW-1650		Trench Excavation from MHD5 to MHD9.5 (approx. 90m long with M/Hs MHD5A & 5B)		(114)	50 days	Thu 16/7/20	Fri 11/9/20	60 days	Wed 2/9/20	Wed 30/12/20	Wed 2/9/20	Wed 30/12/20	290,296,301,303,305		0 days		100%
293	CIW-1660		Provision of Pumping System from Screen to Flume Channel		87	0 days	NA	NA	287 days	Tue 10/11/20	Thu 28/10/21	Tue 10/11/20	NA	289	294	-111 days		75%
294	CIW-1670		Manholes construction (MHD5A, MHD5B, MHD5C) and Pipe laying			45 days	Sat 23/5/20	Thu 16/7/20	293 days	Tue 3/11/20	Thu 28/10/21	Tue 3/11/20	NA	293	44FF	-111 days		8%
295	**CIW-2000**		**Decommission and Demolition of Existing Faciliates and Structures**			**240 days**	**Mon 2/3/20**	**Fri 18/12/20**	**222 days**	**Thu 19/3/20**	**Tue 15/12/20**	**Thu 19/3/20**	**Tue 15/12/20**	**6,122,160**		**0 days**		**100%**
296	**CIW-2100**		**Primary Sludge Thickening Tank No.1 and No.2**			**80 days**	**Mon 2/3/20**	**Tue 9/6/20**	**222 days**	**Thu 19/3/20**	**Tue 15/12/20**	**Thu 19/3/20**	**Tue 15/12/20**		**292**	**0 days**		**100%**
297	CIW-2101		Additional Works for Temporary Diversion of Bypass Pipe near Primary Sludge Thickeners			0 days	NA	NA	45 days	Thu 19/3/20	Sun 17/5/20	Thu 19/3/20	Sun 17/5/20			0 days		100%
298	CIW-2110		Removal of E&M equipment of primary sludge thickening tank			0 days	NA	NA	1 day	Thu 4/6/20	Thu 4/6/20	Thu 4/6/20	Thu 4/6/20		299	0 days		100%
299	CIW-2120		Decommission and Demolition the tank			80 days	Mon 2/3/20	Tue 9/6/20	150 days	Thu 18/6/20	Tue 15/12/20	Thu 18/6/20	Tue 15/12/20	298	301	0 days		100%
300	CIW-2130		Demolition of structure no.2			0 days	NA	NA	24 days	Mon 18/5/20	Mon 22/6/20	Mon 18/5/20	Mon 22/6/20			0 days		100%
301	CIW-2200		Primary Sludge Pump Pit			60 days	Wed 10/6/20	Thu 20/8/20	18 days	Wed 22/7/20	Tue 11/8/20	Wed 22/7/20	Tue 11/8/20	299	302,303,292,304	0 days		100%
302	CIW-2300		Septic Tank			50 days	Fri 21/8/20	Tue 20/10/20	18 days	Wed 12/8/20	Tue 1/9/20	Wed 12/8/20	Tue 1/9/20	301		0 days		100%
303	**CIW-2400**		**Diesel Tank**			**50 days**	**Wed 21/10/20**	**Fri 18/12/20**	**53 days**	**Thu 2/7/20**	**Tue 1/9/20**	**Thu 2/7/20**	**Tue 1/9/20**	**301**	**292**	**0 days**		**100%**
304	CIW-2410		Transfers of Remaining Diesel Fuel of Existing Diesel Tank			0 days	NA	NA	15 days	Thu 2/7/20	Tue 21/7/20	Thu 2/7/20	Tue 21/7/20	301	305	0 days		100%
305	CIW-2420		Demolition of diesel tank			50 days	Wed 21/10/20	Fri 18/12/20	18 days	Wed 12/8/20	Tue 1/9/20	Wed 12/8/20	Tue 1/9/20	304	**292**	0 days		100%
306	**CIW-3000**	*	**Inlet Works No.1 Building (1)**			**569 days**	**Sat 19/12/20**	**Mon 21/11/22**	**747 days**	**Tue 15/9/20**	**Thu 23/3/23**	**Tue 15/9/20**	**NA**	**6**		**748 days**		**18%**
307	CIW-3100		Predrilling (10nrs, 1rigs, 2.5days/drillhole/rig) - stage 1			40 days	Mon 4/1/21	Mon 22/2/21	28 days	Tue 15/9/20	Mon 19/10/20	Tue 15/9/20	Mon 19/10/20	248,250,273,228,282		0 days	1	100%
308	CIW-3100a		Predrilling (22nrs, 1rigs, 2.5days/drillhole/rig) - stage 2			0 days	NA	NA	60 days	Tue 8/12/20	Mon 22/2/21	Tue 8/12/20	Mon 22/2/21			0 days		100%
309	CIW-3200		Pre-bored H piles (188nos, 1.8rigs, 2days/rig/pile)			133 days	Tue 23/2/21	Wed 4/8/21	210 days	Fri 19/2/21	Tue 2/11/21	Fri 19/2/21	NA	228,132	310SS+150 days,311	-34 days	5	63%
310	CIW-3400a		Pile Load Test at stage 1			26 days	Thu 5/8/21	Fri 3/9/21	21 days	Sat 21/8/21	Tue 14/9/21	NA	NA	309SS+150 days	312	83 days		0%
311	CIW-3400b		Pile Load Test at stage 2 & 3			0 days	NA	NA	21 days	Wed 3/11/21	Fri 26/11/21	NA	NA	309	328,313	-34 days		0%
312	CIW-3300a		Sheetpile Installation at Phase C(900sq.m, 1rigs, 50sqm/rig/day)			80 days	Tue 23/3/21	Wed 30/6/21	30 days	Wed 15/9/21	Fri 22/10/21	NA	NA	310	315	83 days		0%
313	CIW-3300b		Sheetpile Installation at Phase B (2300sq.m, 1rigs, 50sqm/rig/day)			0 days	NA	NA	50 days	Sat 27/11/21	Thu 27/1/22	NA	NA	311	316	-34 days		0%
314	CIW-3500		**ELS works**			**77 days**	**Sat 4/9/21**	**Mon 6/12/21**	**157 days**	**Sat 23/10/21**	**Fri 6/5/22**	**NA**	**NA**		**334,165SF,169SF**	**3 days**	**5**	**0%**
315	CIW-3510		Phrase C (Grid G3 to L7)) - Excavation to -3.3mPD and blinding (strutting 2 layers, excavate soil 2250 cu.m)			77 days	Fri 4/6/21	Mon 6/12/21	77 days	Sat 23/10/21	Mon 24/1/22	NA	NA	312	320,333	83 days		0%
316	CIW-3520		Phrase B (Grid A1 to G3) - Excavation to -7.5mPD and blinding (strutting 4 layers, excavate soil 11000cu.m)			77 days	Fri 4/6/21	Mon 6/12/21	77 days	Fri 28/1/22	Fri 6/5/22	NA	NA	313	324	-34 days		0%
317	CIW-3590		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Mon 30/8/21	Mon 30/8/21	NA	NA	318SS-3 emons		1211 days		0%
318	CIW-3600		**R.C. Structure works**			**296 days**	**Thu 5/8/21**	**Thu 4/8/22**	**300 days**	**Sat 27/11/21**	**Thu 1/12/22**	**NA**	**NA**		**317SS-3 emons,332**	**-34 days**	**5**	**0%**
319	CIW-3610		**Phase C (Grid G3 to L7)**			**105 days**	**Thu 5/8/21**	**Wed 8/12/21**	**105 days**	**Tue 25/1/22**	**Tue 7/6/22**	**NA**	**NA**			**114 days**		**0%**
320	CIW-3611		Rebar fix and formwork and concreting for the pile cap (G/F) (including ELS demolition works)			40 days	Thu 5/8/21	Mon 20/9/21	40 days	Tue 25/1/22	Tue 15/3/22	NA	NA	315	321	114 days		0%
321	CIW-3612		Rebar fix and formwork and concreting upto +13.45mPD (1/F)			25 days	Tue 21/9/21	Fri 22/10/21	25 days	Wed 16/3/22	Thu 14/4/22	NA	NA	320	322	114 days		0%
322	CIW-3613	KD1C	Rebar fix and formwork and concreting upto +25.80mPD (R/F)			40 days	Sat 23/10/21	Wed 8/12/21	40 days	Tue 19/4/22	Tue 7/6/22	NA	NA	321	44FF,331,524	114 days		0%
323	CIW-3620		**Phase B (Gride A1 to G3)**			**193 days**	**Tue 7/12/21**	**Thu 4/8/22**	**173 days**	**Sat 7/5/22**	**Thu 1/12/22**	**NA**	**NA**			**-34 days**		**0%**
324	CIW-3621		Rebar fix and formwork and concreting for the Inlet Works structure upto Ground Level (including ELS demolition works)			54 days	Tue 7/12/21	Mon 14/2/22	54 days	Sat 7/5/22	Tue 12/7/22	NA	NA	316	325	-34 days		0%
325	CIW-3622		Apply waterproofing membrance and backfilling			14 days	Tue 15/2/22	Wed 2/3/22	14 days	Wed 13/7/22	Thu 28/7/22	NA	NA	324,185	326	-34 days		0%
326	CIW-3623	KD1C	Rebar fix and formwork and concreting for the Inlet Works structure upto Roof Level			105 days	Thu 3/3/22	Thu 4/8/22	105 days	Fri 29/7/22	Thu 1/12/22	NA	NA	325	331	-34 days		0%
327	CIW-3630		**Phase A (G1 to L3)**			**193 days**	**Tue 7/12/21**	**Thu 4/8/22**	**173 days**	**Sat 27/11/21**	**Sat 2/7/22**	**NA**	**NA**			**93 days**		**0%**
328	CIW-3631		Rebar fix and formwork and concreting for the Inlet Works structure upto Ground Level (including ELS demolition works)			54 days	Tue 7/12/21	Mon 14/2/22	54 days	Sat 27/11/21	Fri 4/2/22	NA	NA	311	329	93 days		0%
329	CIW-3632		Apply waterproofing membrance and backfilling			14 days	Tue 15/2/22	Wed 2/3/22	14 days	Sat 5/2/22	Mon 21/2/22	NA	NA	328,185	330	93 days		0%
330	CIW-3633	KD1C	Rebar fix and formwork and concreting for the Inlet Works structure upto Roof Level			105 days	Thu 3/3/22	Thu 4/8/22	105 days	Tue 22/2/22	Sat 2/7/22	NA	NA	329	332,44FF,331	93 days		0%
331	CIW-3700	KD1C	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Thu 4/8/22	Thu 4/8/22	0 days	Thu 1/12/22	Thu 1/12/22	NA	NA	330,322,326	44FF	-34 days		0%
332	CIW-3800	SW1	ABWF works + BS works			90 days	Fri 5/8/22	Mon 21/11/22	90 days	Fri 2/12/22	Thu 23/3/23	NA	NA	330,189,141,318	56FF	262 days		0%
333	CIW-3900	KD1D	Process Pipe CHE chainage 0-20 & CHF chainage 0-20			0 days	NA	NA	50 days	Sat 17/12/22	Mon 20/2/23	NA	NA	315,351FF	45FF	0 days		0%
334	CIW-4000	SW2	Remaining sewerage and utilities in Portion B1 & B2			0 days	NA	NA	60 days	Sat 7/5/22	Tue 19/7/22	NA	NA	314	57FF,555	3 days		0%
335	**CPS-0000**	*	**Primary Sedimentation Tanks, B-3 (2)**			**1115 days**	**Mon 18/11/19**	**Wed 23/8/23**	**1115 days**	**Mon 18/11/19**	**Wed 23/8/23**	**Mon 18/11/19**	**NA**	**8**		**139 days**		**44%**
336	CPS-1000		Operation of the Existing Primary sedimentation Tanks			615 days	Mon 18/11/19	Sat 24/7/21	615 days	Mon 18/11/19	Sat 24/7/21	Mon 18/11/19	Sat 24/7/21	2	339,338	0 days		100%
337	CPS-1100		Identification of existing cables near Primary Sedimentation Tank		88	0 days	NA	NA	3 days	Fri 19/2/21	Mon 22/2/21	Fri 19/2/21	Mon 22/2/21			0 days		100%
338	CPS-1200		Removal of residual sludge			0 days	NA	NA	12 days	Mon 26/7/21	Sat 7/8/21	NA	NA	336	339	-62 days		0%
339	CPS-2000		Demolition of existing primary sedimentation tanks no. 1			45 days	Mon 13/12/21	Wed 9/2/22	30 days	Mon 9/8/21	Sat 11/9/21	NA	NA	122,160,162,336,338	342,340	-62 days		0%
340	CPS-2000a		Demolition of existing primary sedimentation tanks no. 2			0 days	NA	NA	25 days	Mon 13/9/21	Wed 13/10/21	NA	NA	339	342	-62 days		0%
341	CPS-3000a		Predrilling (5nrs, 1rigs, 3days/drillhole/rig) - In-advanced stage			0 days	NA	NA	15 days	Thu 8/4/21	Sat 24/4/21	Thu 8/4/21	Sat 24/4/21		343	0 days		100%

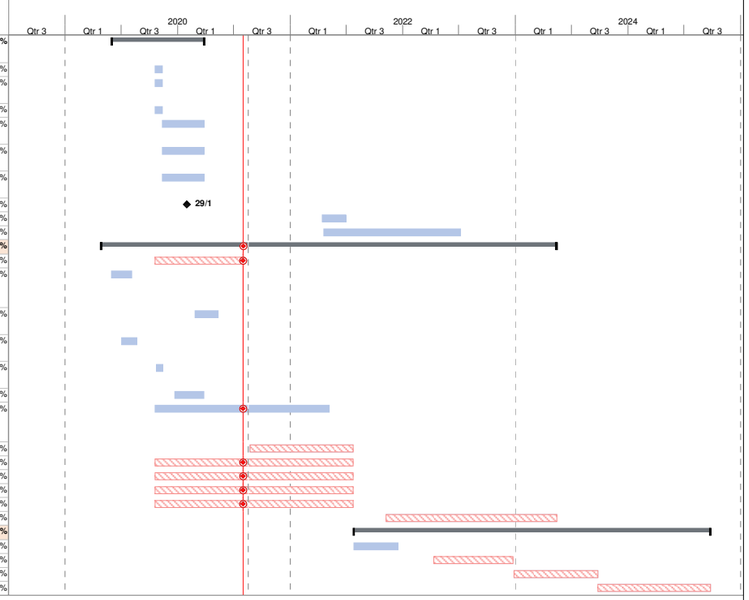


ID	Activity ID	Key Date	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
342	CPS-3000		Predrilling (63nrs, 3rigs, 3days/drillhole/rig)			38 days	Thu 10/2/22	Fri 25/3/22	38 days	Fri 15/10/21	Sat 27/11/21	NA	NA	127,452,339,340	343	-62 days	1	0%
343	CPS-4000		Pre-bored H piles (205nos, 2.5rigs, 2days/pile/rig)			102 days	Sat 26/3/22	Mon 1/8/22	164 days	Mon 29/11/21	Wed 22/6/22	NA	NA	132,453,341,342	344FS-40 days,346,345	-62 days	5	0%
344	CPS-5000		Sheetpile Installation (FSP-II, 3360sq.m, 1rigs, 50sqm/rig/day)			85 days	Wed 25/5/22	Fri 2/9/22	42 days	Thu 5/5/22	Fri 24/6/22	NA	NA	343FS-40 days,133	346,352SS+27 days	-62 days		0%
345	CPS-6000		Pile Load Test			26 days	Tue 2/8/22	Wed 31/8/22	26 days	Thu 23/6/22	Sat 23/7/22	NA	NA	343	346	0 days		0%
346	CPS-7000		ELS works (20000cu.m soil with 2 layers wailing / strutting)			45 days	Sat 3/9/22	Fri 28/10/22	60 days	Mon 25/7/22	Wed 5/10/22	NA	NA	343,135,345,344	347FF-3 emons,348,166SF,170SF	0 days	3	0%
347	CPS-7900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Thu 7/7/22	Thu 7/7/22	NA	NA	346FF-3 emons	348SS-3 emons	186 days		0%
348	CPS-8000	KD1D	R.C. Structure works (including ELS demolition works)			92 days	Sat 29/10/22	Mon 20/2/23	112 days	Thu 6/10/22	Mon 20/2/23	NA	NA	137,346,347SS-3 emons	349,350,45FF,351FF	0 days	3	0%
349	CPS-9000	KD1D	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Mon 20/2/23	Mon 20/2/23	0 days	Mon 20/2/23	Mon 20/2/23	NA	NA	348	45FF	0 days		0%
350	CPS-10000	SW1	ABWF works + BS works			150 days	Tue 21/2/23	Wed 23/8/23	150 days	Tue 21/2/23	Wed 23/8/23	NA	NA	348,189,141	56FF	139 days		0%
351	CPS-11000	KD1D	Flowmeter Chamber no.1			60 days	Tue 21/2/23	Sat 6/5/23	60 days	Tue 6/12/22	Mon 20/2/23	NA	NA	348FF	45FF,333FF	0 days		0%
352	CPS-12000	SW2	Process Pipe CHG chainage 0-50, CHH chainage 0-80, CHI chainage 0-95 & CHJ chianage 0-40 and surrounding utilities			0 days	NA	NA	100 days	Wed 8/6/22	Thu 6/10/22	NA	NA	344SS+27 days	57FF,555	-62 days		0%
353	**CBR-0000**	*	**Bioreactors No.2A & 2B, B-4 (3)**			**1106 days**	**Mon 18/11/19**	**Sat 12/8/23**	**1194 days**	**Mon 18/11/19**	**Mon 27/11/23**	**Mon 18/11/19**	**NA**	**9**		**546 days**		**38%**
354	CBR-1000		Operation of 2no. Existing 800mm air mains over bioreactor no.2			360 days	Mon 18/11/19	Wed 11/11/20	292 days	Mon 18/11/19	Wed 11/11/20	Mon 18/11/19	Wed 11/11/20	2		0 days		100%
355	CBR-2000		Construction of Removable Steel Shutter in the Common Channel of BR2 and 3		67	0 days	NA	NA	86 days	Thu 1/10/20	Fri 15/1/21	Thu 1/10/20	Fri 15/1/21	144	365	0 days		100%
356	CBR-4100		Take Down E&M Equipment & cables in Bioreactor BR2 and Return to DSD		95	0 days	NA	NA	90 days	Thu 15/10/20	Mon 1/2/21	Thu 15/10/20	Mon 1/2/21		366	0 days		100%
357	CBR-4200		Installation of monitoring points before demolition of BR2		219	0 days	NA	NA	5 days	Wed 27/1/21	Mon 1/2/21	Wed 27/1/21	Mon 1/2/21	363	358	0 days		100%
358	CBR-4300		Condition Survey for BR2			0 days	NA	NA	1 day	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	357	366	0 days		100%
359	**CBR-5000**		**Demolition of existing bioreactor no.2**			**60 days**	**Wed 3/2/21**	**Tue 20/4/21**	**98 days**	**Tue 10/11/20**	**Wed 10/3/21**	**Tue 10/11/20**	**Wed 10/3/21**	**122,162**		**0 days**		**100%**
360	CBR-5100		Identification and removal of existing cables on air main pipe bridge		210	0 days	NA	NA	35 days	Tue 10/11/20	Sat 19/12/20	Tue 10/11/20	Sat 19/12/20		361,365	0 days		100%
361	CBR-5300		Plugging and demolition of existing DN800 air main			0 days	NA	NA	5 days	Mon 28/12/20	Sat 2/1/21	Mon 28/12/20	Sat 2/1/21	360		0 days		100%
362	CBR-5200		Diversion of existing lighting cable and Earthing ducts_stage 1		264	0 days	NA	NA	43 days	Fri 4/12/20	Tue 26/1/21	Fri 4/12/20	Tue 26/1/21	363	366	0 days		100%
363	CBR-5400		Overflow incident from BR1 to BR2 works area no.1 (Dec 2020)		285	0 days	NA	NA	33 days	Fri 18/12/20	Thu 28/1/21	Fri 18/12/20	Thu 28/1/21	364	357,362	0 days		100%
364	CBR-5410		Overflow incident from BR1 to BR2 works area (Feb 2021)		340	0 days	NA	NA	8 days	Tue 16/2/21	Wed 24/2/21	Tue 16/2/21	Wed 24/2/21	365	366,363	0 days		100%
365	CBR-3000		Construction of Isolation Wall & stoplog in common channel of BR2 & BR3		277	0 days	NA	NA	43 days	Sat 16/1/21	Wed 10/3/21	Sat 16/1/21	Wed 10/3/21	355,360	364	0 days		100%
366	CBR-5500		Demolition of existing pipe bridge, partition wall and base slab (Stage 1)			30 days	Wed 3/2/21	Fri 12/3/21	26 days	Tue 2/2/21	Sat 6/3/21	Tue 2/2/21	Sat 6/3/21	362,358,364,356	367SS,368	0 days		100%
367	CBR-5520		Removal of additional concrete infill within the partition walls		(174)	0 days	NA	NA	26 days	Tue 2/2/21	Sat 6/3/21	Tue 2/2/21	Sat 6/3/21	366SS	368	0 days		100%
368	CBR-5900		Construction of precautionary measures (i.e. isolation wall)		322	0 days	NA	NA	2 days	Tue 9/3/21	Wed 10/3/21	Tue 9/3/21	Wed 10/3/21	366,367	369,371	0 days		100%
369	CBR-5905		Construction of precautionary measures (i.e. bund wall)		305	0 days	NA	NA	3 days	Thu 15/4/21	Sat 17/4/21	Thu 15/4/21	Sat 17/4/21	368		0 days		100%
370	CBR-5910		Removal of abandoned DN250 air pipe		209	0 days	NA	NA	6 days	Tue 20/4/21	Mon 26/4/21	Tue 20/4/21	Mon 26/4/21			0 days		100%
371	CBR-6000		Predrilling (33nrs, 3rigs, 2days/drillhole/rig)_stage 1			44 days	Wed 21/4/21	Sat 12/6/21	44 days	Mon 1/3/21	Wed 5/5/21	Mon 1/3/21	Wed 5/5/21	368	372	0 days	1	100%
372	CBR-7000		Pre-bored H piles (113nos, 2rigs, 2days/pile/rig)_stage 1			113 days	Tue 15/6/21	Thu 18/11/21	113 days	Thu 6/5/21	Fri 17/9/21	Thu 6/5/21	NA	371	382SS+30 days,377SS+45 days,38	1 day	5	41%
373	CBR-7100		**External works between BR2 and MFB2**			**0 days**	**NA**	**NA**	**217 days**	**Wed 30/6/21**	**Mon 21/3/22**	**Wed 30/6/21**	**NA**			**1046 days**		**9%**
374	CBR-7110		DN700 (CHER)RAS Diversion			0 days	NA	NA	45 days	Wed 30/6/21	Sat 21/8/21	Wed 30/6/21	NA	372SS+45 days	375	1212 days		2%
375	CBR-7120		Temporary vehicle diversion for RAS operation			0 days	NA	NA	6 days	Mon 23/8/21	Sat 28/8/21	NA	NA	374		1212 days		0%
376	CBR-7130		**DN600 Temporary Sewage diversion**			**0 days**	**NA**	**NA**	**120 days**	**Wed 30/6/21**	**Sat 20/11/21**	**Wed 30/6/21**	**NA**			**-45 days**		**18%**
377	CBR-7131		2nos. Manhole Construction (MHTD1 and MHTD2)		204, 353	0 days	NA	NA	75 days	Wed 30/6/21	Mon 27/9/21	Wed 30/6/21	NA	372SS+45 days	378FS-30 days	-88 days		36%
378	CBR-7132		Existing DN600 tank drain diversion		204, 353	45 days	NA	NA	75 days	Mon 23/8/21	Sat 20/11/21	NA	NA	377FS-30 days	379	-88 days		0%
379	CBR-7140		Demolition of abandoned DN600 pipe and existing surrounded wall & channel of BR2		353, 336	30 days	NA	NA	45 days	Mon 22/11/21	Sat 15/1/22	NA	NA	378	380	-88 days		0%
380	CBR-7150		Pre-drilling(3nr.) & Pre-bored H piles (20nrs, 1rig, 2days/drillhole/rig)_stage 2A			26 days	NA	NA	26 days	Mon 17/1/22	Fri 18/2/22	NA	NA	379	381	-88 days		0%
381	CBR-7160		Pile load test			26 days	NA	NA	26 days	Sat 19/2/22	Mon 21/3/22	NA	NA	380,386	389,388	-88 days		0%
382	CBR-7200		**External works between BR2 and PST**			**0 days**	**NA**	**NA**	**141 days**	**Wed 30/6/21**	**Wed 15/12/21**	**Wed 30/6/21**	**NA**	**372SS+30 days**		**-38 days**		**19%**
383	CBR-7210		Demolition of existing DN1200. DN900 and DN500 pipe (w/ ELS works)		91	0 days	NA	NA	75 days	Wed 30/6/21	Mon 27/9/21	Wed 30/6/21	NA	372SS+45 days	384	-38 days		36%
384	CBR-7220		Diversion of existing lighting cable and Earthing ducts (w/ ELS)		264	0 days	NA	NA	30 days	Tue 28/9/21	Wed 3/11/21	NA	NA	383	385	-38 days		0%
385	CBR-7230		Demolition of existing side wall		336	0 days	NA	NA	12 days	Thu 4/11/21	Wed 17/11/21	NA	NA	384	386	-38 days		0%
386	CBR-7240		Pre-bored H piles (24nrs, 2rig, 2days/drillhole/rig)_stage 2B			24 days	NA	NA	24 days	Thu 18/11/21	Wed 15/12/21	NA	NA	385	381	-38 days		0%
387	CBR-7340		Demolition of existing side wall between BR2 & BR3 and baseslab			0 days	NA	NA	60 days	Sat 18/9/21	Tue 30/11/21	NA	NA	372	388	1 day		0%
388	CBR-8000		Sheetpile Installation (3000sq.m, 1rigs, 50sqm/rig/day)			60 days	Wed 8/9/21	Fri 19/11/21	60 days	Tue 22/3/22	Tue 7/6/22	NA	NA	381,387	389	-88 days		0%
389	CBR-10000		ELS works (18100cu.m soil with 4 layers wailing / strutting)			125 days	Mon 20/12/21	Fri 27/5/22	80 days	Wed 8/6/22	Fri 9/9/22	NA	NA	135,381,388	391,390FF-3 emons,399SS+46 day	-88 days	3	0%
390	CBR-10900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Sat 11/6/22	Sat 11/6/22	NA	NA	389FF-3 emons	391SS-3 emons	168 days		0%
391	CBR-11000	KD1E	R.C. Structure works (including ELS demolition works)			180 days	Sat 28/5/22	Sat 31/12/22	180 days	Sat 10/9/22	Sat 22/4/23	NA	NA	138,186,187,190,188,389,390SS-3 emons	398,46FF,397,393FF,394SS+25 da	-88 days	5	0%
392		KD1E	Process Pipe CHO chainage 65-140			0 days	NA	NA	60 days	Wed 8/2/23	Sat 22/4/23	NA	NA	391FF	46FF	-88 days		0%
393	CBR-11020	KD1E	Additional backfill works after end wall construction at BR2 common channel		277	0 days	NA	NA	30 days	Wed 15/3/23	Sat 22/4/23	NA	NA	391FF	46FF	-88 days		0%
394	CBR-13000	KD1E	Flowmeter no. 2-4			180 days	2023/1/3	2023/8/12	60 days	Thu 13/10/22	Wed 21/12/22	NA	NA	391SS+25 days	395FS-13 days	-88 days		0%
395	CBR-14000	KD1E	Gate Valve Chamber no.1-3			180 days	2023/1/3	2023/8/12	60 days	Wed 7/12/22	Tue 21/2/23	NA	NA	394FS-13 days	396FS-12 days	-88 days		0%
396	CBR-15000	KD1E	Plug Valve Chamber no.1-2			180 days	2023/1/3	2023/8/12	60 days	Wed 8/2/23	Sat 22/4/23	NA	NA	395FS-12 days	46FF	-88 days		0%
397	CBR-12000	KD1E	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Sat 31/12/22	Sat 31/12/22	0 days	Sat 22/4/23	Sat 22/4/23	NA	NA	391	46FF	-88 days		0%
398	CBR-16000	SW1	ABWF works + BS works			180 days	Tue 3/1/23	Sat 12/8/23	180 days	Mon 24/4/23	Mon 27/11/23	NA	NA	391,189,141	56FF	60 days		0%
399	CBR-17000	SW2	Process Pipe CHQ chainage 65-170, CHP chainage 60-130, CHL chainage 0-35 & CHK chianage 0-50 and surrounding utilities			0 days	NA	NA	80 days	Tue 2/8/22	Sat 5/11/22	NA	NA	389SS+46 days	57FF,555	-88 days		0%
400	**CMF-0000**	*	**Membrane Facilities Building, B-5**			**941 days**	**Mon 6/1/20**	**Thu 9/3/23**	**1133 days**	**Mon 18/11/19**	**Wed 13/9/23**	**Mon 18/11/19**	**NA**	**2**		**121 days**		**45%**
401			Operation of existing Final Sedimentation Tanks no.3 & 4		26	0 days	NA	NA	98 days	Mon 18/11/19	Tue 17/3/20	Mon 18/11/19	Tue 17/3/20	2		0 days		100%
402	**CMF-1000**		**Demolition of existing final sedimentation tanks no. 3 & 4**			**14 days**	**Mon 6/1/20**	**Tue 21/1/20**	**340 days**	**Mon 6/1/20**	**Sun 28/2/21**	**Mon 6/1/20**	**Sun 28/2/21**	**160,122,10**		**0 days**		**100%**
403	CMF-1100		Confirmation of Decommission Schedule	68	30	0 days	NA	NA	58 days	Mon 6/1/20	Mon 16/3/20	Mon 6/1/20	Mon 16/3/20		404	0 days		100%
404	CMF-1200		Provision of new submersed pump	68	26	0 days	NA	NA	27 days	Wed 4/3/20	Fri 3/4/20	Wed 4/3/20	Fri 3/4/20	403	405	0 days		100%
405	CMF-1205		Assistant to decommissioning of Final Sedimentation Tank No. 3 and 4	68	7	0 days	NA	NA	14 days	Wed 4/3/20	Fri 3/4/20	Wed 4/3/20	Fri 3/4/20	404	406	0 days		100%
406	CMF-1300		Additional dismantling works to retain specified electrical and mechanical equipment	75	(013)	0 days	NA	NA	21 days	Tue 7/4/20	Wed 6/5/20	Tue 7/4/20	Wed 6/5/20	405	407	0 days		100%
407	CMF-1400		Additional pluging works for DN 1200 Conc. S&S pipe at wash water pumping station chamber	76, 77, 144	(015)	0 days	NA	NA	70 days	Mon 8/6/20	Sat 29/8/20	Mon 8/6/20	Sat 29/8/20	406	408	0 days		100%
408	CMF-1500		Diversion of wash water main	76, 77	032	0 days	NA	NA	21 days	Mon 15/6/20	Fri 10/7/20	Mon 15/6/20	Fri 10/7/20	407	409	0 days		100%
409	CMF-1600		Isolation wall for RAS Channel No.1	76, 77	035	0 days	NA	NA	40 days	Mon 1/6/20	Sat 18/7/20	Mon 1/6/20	Sat 18/7/20	408	413	0 days		100%
410	CMF-1710		Removal of DN1400 Bioreactor No. 2 Effluent Pipe		043	0 days	NA	NA	8 days	Fri 19/2/21	Sun 28/2/21	Fri 19/2/21	Sun 28/2/21			0 days		100%
411	CMF-1800		Exposed and disconnet uncharted existing cable between FST3 and FST 4	77	038	0 days	NA	NA	20 days	Thu 2/7/20	Fri 24/7/20	Thu 2/7/20	Fri 24/7/20			0 days		100%
412	CMF-1110		Demolition of structure no. 3 & 4	68, 75, 76, 77, 144		14 days	Mon 6/1/20	Tue 21/1/20	122 days	Wed 1/4/20	Sat 29/8/20	Wed 1/4/20	Sat 29/8/20		414	0 days		100%
413	CMF-1900		Removal of Existing DN150 SAS Rising Main at RAS Channel No. 1	212	060	0 days	NA	NA	23 days	Mon 31/8/20	Fri 25/9/20	Mon 31/8/20	Fri 25/9/20	409	415	0 days		100%
414	CMF-2000		Predrilling (83nrs, 4rigs, 2.5days/drillhole/rig)	144, 212	120	42 days	Sat 6/6/20	Mon 27/7/20	31 days	Mon 10/8/20	Mon 14/9/20	Mon 10/8/20	Mon 14/9/20	127,412	415	0 days	1	100%
415	CMF-3000		Pre-bored H piles (171nos, 2rigs, 1.5days/pile/rig) [Extended working hours 0700-1900 & shortern pile length]	212, 308, 309	120	140 days	Tue 28/7/20	Wed 13/1/21	96 days	Mon 28/9/20	Sat 23/1/21	Mon 28/9/20	Sat 23/1/21	414,132,413	416,417	0 days	5	100%
416	CMF-3100		Change of Layout of Basement of MFB no. 2		(102)	0 days	NA	NA	17 days	Tue 3/11/20	Sat 21/11/20	Tue 3/11/20	Sat 21/11/20	415		0 days		100%
417	CMF-4000		Pile Load Test			25 days	Thu 14/1/21	Tue 16/2/21	19 days	Mon 4/1/21	Mon 25/1/21	Mon 4/1/21	Mon 25/1/21	415	421,418	0 days		100%
418	CMF-5000		Installation of sheetpile [with pre-boring]		120	40 days	Wed 22/1/20	Wed 11/3/20	120 days	Mon 28/12/20	Thu 24/6/21	Mon 28/12/20	Thu 24/6/21	417	421	0 days		100%
419	**CMF-6000**		**ELS works**			**169 days**	**Wed 17/2/21**	**Thu 9/9/21**	**188 days**	**Fri 25/6/21**	**Thu 10/2/22**	**Fri 25/6/21**	**NA**	**10**	**424FF-3 emons**	**-87 days**	**5**	**22%**
420	**CMF-6100**		**Pharse A (A1 to N6) - Excavation to -9mPD and blinding**		**45**	**169 days**	**Wed 17/2/21**	**Thu 9/9/21**	**188 days**	**Fri 25/6/21**	**Thu 10/2/22**	**Fri 25/6/21**	**NA**		**423SS**	**-100 days**		**16%**
421	CMF-6110		Soil Excavation [Extended working hours 0700-1900 & reduction of excavation volume]		120, 207	169 days	Wed 17/2/21	Thu 9/9/21	88 days	Fri 25/6/21	Fri 8/10/21	Fri 25/6/21	NA	418,135,417	422	-117 days		35%
422	CMF-6120		Additional Rock Excavation [2200 cu.m, 7.5cu.m/group x 2]		120, 207	0 days	NA	NA	100 days	Sat 9/10/21	Thu 10/2/22	NA	NA	421	426	-117 days		0%
423	CMF-6200		Pharse B (A6 to N10) - Excavation to -1.9mPD and blinding			169 days	Wed 17/2/21	Thu 9/9/21	100 days	Fri 25/6/21	Sat 23/10/21	Fri 25/6/21	NA	420SS	427,433	1 day		31%
424	CMF-6900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Fri 12/11/21	Fri 12/11/21	NA	NA	419FF-3 emons	425SS-3 emons	216 days		0%
425	**CMF-7000**		**RC Structure works**			**232 days**	**Fri 10/9/21**	**Sat 25/6/22**	**262 days**	**Fri 11/2/22**	**Wed 28/12/22**	**NA**	**NA**	**10,424SS-3 emons**		**-117 days**	**5**	**0%**
426	CMF-7100	KD1F	Phase A - from B2 - Level 1 (including ELS demolition works)			112 days	Fri 10/9/21	Tue 25/1/22	112 days	Fri 11/2/22	Wed 29/6/22	NA	NA	139,186,187,190,188,422	427SS+30 days,428,430	-117 days		0%
427	CMF-7110	KD1F	Phase B - from B1 - Level 1 (including ELS demolition works)			112 days	Fri 10/9/21	Tue 25/1/22	112 days	Fri 18/3/22	Thu 4/8/22	NA	NA	426SS+30 days,423	429,430	-117 days		0%
428	CMF-7120	KD1G	Phase A - from Level 1 to Roof			120 days	Wed 26/1/22	Sat 25/6/22	120 days	Thu 30/6/22	Mon 21/11/22	NA	NA	427	431,432	-87 days		0%
429	CMF-7130	KD1G	Phase B - from Level 1 to Roof			120 days	Wed 26/1/22	Sat 25/6/22	120 days	Fri 5/8/22	Wed 28/12/22	NA	NA	427	431,432	-117 days		0%
430	CMF-8000	KD1F	Allow access to Contractor DE/2018/04 for E&M installation and T&C works (from B2-level 1)			0 days	Tue 25/1/22	Tue 25/1/22	0 days	Thu 4/8/22	Thu 4/8/22	NA	NA	426,427	47FF	-115 days		0%
431	CMF-9000	KD1G	Allow access to Contractor DE/2018/04 for E&M installation and T&C works (from Level to Roof)			0 days	Sat 25/6/22	Sat 25/6/22	0 days	Wed 28/12/22	Wed 28/12/22	NA	NA	428,429	48FF	-117 days		0%
432	CMF-10000	SW1	ABWF works + BS works			210 days	Mon 27/6/22	Thu 9/3/23	210 days	Thu 29/12/22	Wed 13/9/23	NA	NA	189,428,429	56FF	121 days		0%
433	CMF-11000	SW2	Process Pipe CHQ chainage 0-65, CHM chainage 0-120, CHN chainage 0-125, CHO chainage 0-65, CHP chainage 0-60 & CHV chainge 0-50 and surrounding utilities			0 days	NA	NA	176 days	Mon 25/10/21	Tue 31/5/22	NA	NA	423	57FF,555	43 days		0%
434	**CSA-0000**	*	**SAS Pumping Station, B-6**			**455 days**	**Wed 20/5/20**	**Thu 25/11/21**	**728 days**	**Sat 18/4/20**	**Wed 28/9/22**	**Sat 18/4/20**	**NA**	**11**		**891 days**		**78%**

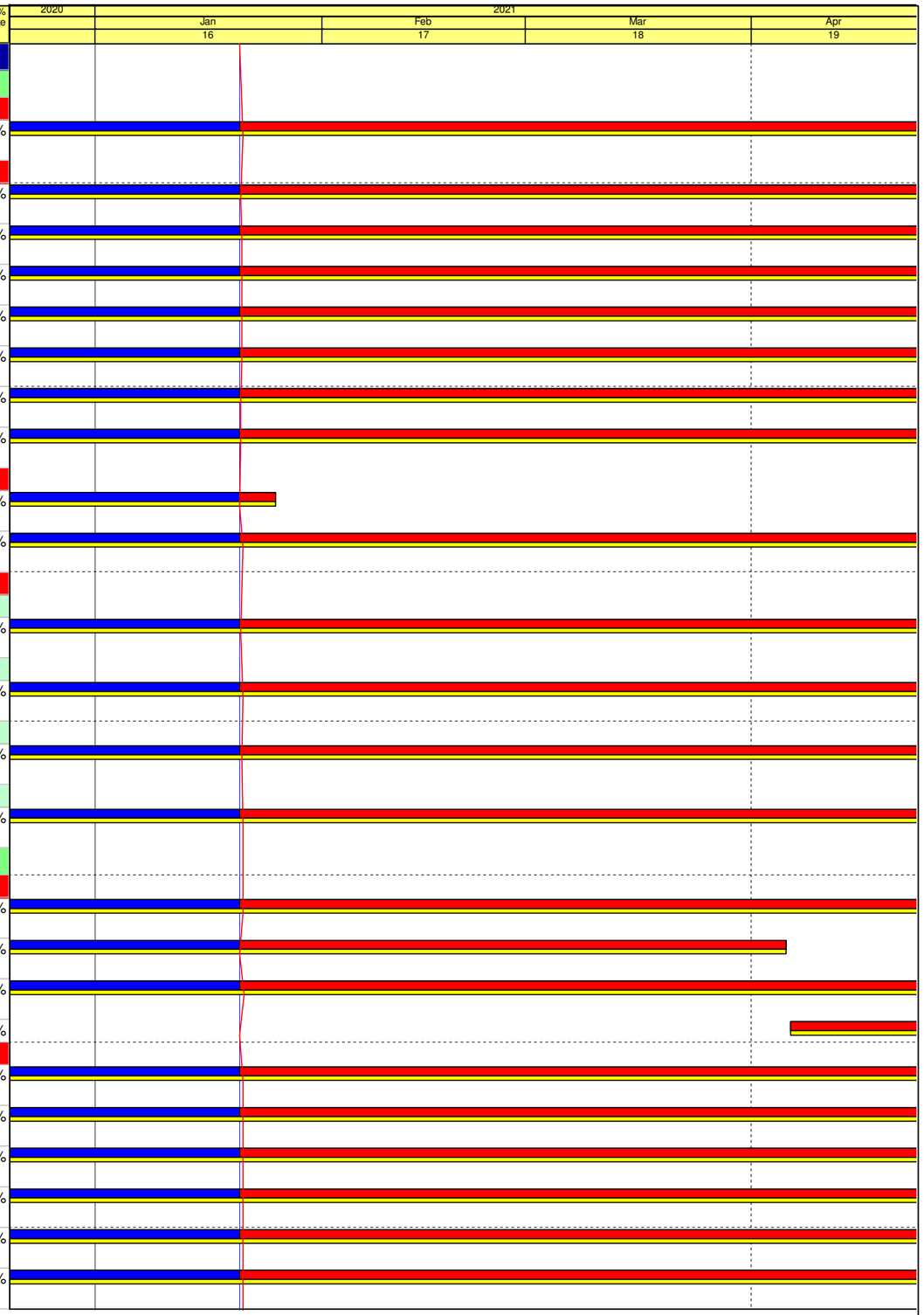
ID	Activity ID	Key Date	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
435	**CSA-1000**		**Additional Preliminary Works**			**0 days**	**NA**	**NA**	**330 days**	**Tue 9/6/20**	**Mon 19/7/21**	**Tue 9/6/20**	**NA**			**1247 days**		**98%**
436	CSA-1020		Expose and abandon existing electric cable & trial pits		78	0 days	NA	NA	39 days	Mon 17/8/20	Wed 30/9/20	Mon 17/8/20	Wed 30/9/20			0 days		100%
437	CSA-1030		Installation of standpipes		71	0 days	NA	NA	13 days	Mon 14/9/20	Mon 28/9/20	Mon 14/9/20	Mon 28/9/20			0 days		100%
438	CSA-1100		Diversion of Existing SAS Rising Main near SAS Pumping Station	68, 75, 76	69	0 days	NA	NA	170 days	Tue 9/6/20	Thu 31/12/20	Tue 9/6/20	Thu 31/12/20		453	0 days		100%
439	CSA-1200		Decommission of exisiting power and signal systems in leachate Pump station switch room	312, 309, 310	74	0 days	NA	NA	58 days	Mon 21/9/20	Mon 30/11/20	Mon 21/9/20	Mon 30/11/20	146	453	0 days		100%
440	CSA-1300		Construction of Cable trough for CLP 11kv Cable Diversion	75, 76, 77, 161		0 days	NA	NA	54 days	Mon 19/10/20	Mon 21/12/20	Mon 19/10/20	Mon 21/12/20		453	0 days		100%
441	CSA-1400		Demolition of Existing Pillar box and its concrete plinth	144, 212, 30	30	0 days	NA	NA	53 days	Wed 12/8/20	Sat 14/11/20	Wed 12/8/20	Sat 14/11/20	149	453	0 days		100%
442	CSA-1500		Excavation to locate existing underground cble near SAS Pump Station		78	0 days	NA	NA	59 days	Wed 17/6/20	Sat 21/11/20	Wed 17/6/20	Sat 21/11/20		453	0 days		100%
443	CSA-1600		Diversion of Existing DN80 Permeate Rising Main near SAS Pumping station		89	0 days	NA	NA	72 days	Tue 6/10/20	Thu 31/12/20	Tue 6/10/20	Thu 31/12/20		453	0 days		100%
444	CSA-1800		Trench Excavation near SAS for CLP diversion of 11kV cable	309, 310	97	0 days	NA	NA	53 days	Mon 12/10/20	Sat 12/12/20	Mon 12/10/20	Sat 12/12/20		453	0 days		100%
445	CSA-1700		Relocation of Oil Interceptor Near Existing Compressor House	144, 212, 30	70	0 days	NA	NA	50 days	Mon 9/11/20	Fri 8/1/21	Mon 9/11/20	Fri 8/1/21		453	0 days		100%
446	CSA-1900		Diversion of pumping system sewerage	212, 309, 31	83	0 days	NA	NA	36 days	Wed 13/1/21	Fri 26/2/21	Wed 13/1/21	Fri 26/2/21	151	455,453,447	0 days		100%
447	CSA-1910		Diversion of Existing copper pipe near proposed SAS pumping station	309, 310	225	0 days	NA	NA	61 days	Mon 19/10/20	Thu 31/12/20	Mon 19/10/20	Thu 31/12/20	446	453	0 days		100%
448	CSA-1920		Pipework of proposed SAS Pumping Station - 13 nos. of puddles		221	0 days	NA	NA	180 days	Mon 7/12/20	Mon 19/7/21	Mon 7/12/20	NA			1247 days		92%
449	CSA-1930		Additional DN150 Rising main for SAS		220/69	0 days	NA	NA	15 days	Wed 2/12/20	Fri 18/12/20	Wed 2/12/20	Fri 18/12/20			0 days		100%
450	CSA-1940		Additional DN90 PE pipe diversion		89	0 days	NA	NA	7 days	Fri 11/12/20	Fri 18/12/20	Fri 11/12/20	Fri 18/12/20			0 days		100%
451	CSA-1970		Additional diversion of existing sludge rising main and sewerage system		81	0 days	NA	NA	15 days	Thu 21/1/21	Sat 6/2/21	Thu 21/1/21	Sat 6/2/21			0 days		100%
452	CSA-2000		Predrilling (4nrs, 1rig, 4days/drillhole/rig)	68		16 days	Wed 20/5/20	Sat 6/6/20	7 days	Sat 18/4/20	Sat 25/4/20	Sat 18/4/20	Sat 25/4/20	127	342,453	0 days		100%
453	CSA-3000		Pre-bored H piles (12nos, 1rigs, 4days/pile/rig)			60 days	Mon 8/6/20	Tue 18/8/20	19 days	Mon 4/1/21	Mon 25/1/21	Mon 4/1/21	Mon 25/1/21	132,452,148,438,439,441,442,443,445,44	343,454	0 days	2	100%
454	CSA-4000		Pile Load Test			21 days	Wed 19/8/20	Thu 17/9/20	22 days	Tue 23/2/21	Fri 19/3/21	Tue 23/2/21	Fri 19/3/21	453	456,455	0 days		100%
455	CSA-5000		Sheetpile Installation (FSP-II, 690sq.m, 40sqm/day)			28 days	Wed 19/8/20	Sat 19/9/20	28 days	Tue 30/3/21	Wed 5/5/21	Tue 30/3/21	Wed 5/5/21	133,454,446	456	0 days		100%
456	CSA-6000		ELS works (1300cu.m soil with 2 layers wailing / strutting)			75 days	Mon 21/9/20	Wed 19/2/20	75 days	Thu 6/5/21	Wed 4/8/21	Thu 6/5/21	NA	455,135,454	458,457FF-3 emons	-121 days	2	96%
457	CSA-6900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Thu 6/5/21	Thu 6/5/21	Thu 6/5/21	Thu 6/5/21	456FF-3 emons	458SS-3 emons	0 days		100%
458	CSA-7000	KD1H	R.C. Structure works (including ELS demolition works)			186 days	Mon 21/12/20	Mon 9/8/21	186 days	Thu 5/8/21	Sat 19/3/22	NA	NA	456,457SS-3 emons	459,460,49FF	-121 days	5	0%
459	CSA-8000	KD1H	Allow access to Contractor DE/2018/03 for E&M installation and T&C works			0 days	Mon 9/8/21	Mon 9/8/21	0 days	Sat 19/3/22	Sat 19/3/22	NA	NA	458	49FF	-121 days		0%
460	CSA-9000	SW1	ABWF works + BS works			90 days	Tue 10/8/21	Thu 25/11/21	90 days	Tue 14/6/22	Wed 28/9/22	NA	NA	458,189,141,522SS	56FF	405 days		0%
461	**CAS-0000**	*	**Ancillary Structures, B-7**			**503 days**	**Mon 7/9/20**	**Sat 21/5/22**	**420 days**	**Mon 3/5/21**	**Wed 28/9/22**	**Mon 3/5/21**	**NA**	**12**		**891 days**		**7%**
462	**CAS-1000**		Demolition of Existing Faciliates and Structures (leachate pump pit & pumping station)			120 days	Mon 7/9/20	Sat 30/1/21	120 days	Mon 3/5/21	Thu 23/9/21	Mon 3/5/21	NA	122,160,162	497	48 days		41%
463	**CFS-1000**	*	**Fire Services Sprinkler Pumping Room & Emergency Generator House (9)+(10)****		**301**	**220 days**	**Sat 10/4/21**	**Sun 3/1/21**	**419 days**	**Tue 4/5/21**	**Wed 28/9/22**	**Tue 4/5/21**	**NA**			**405 days**		**14%**
464	CFS-1000		Water Sampling and Testing for existing effluent pump pit		384	0 days	NA	NA	12 days	Tue 4/5/21	Mon 17/5/21	Tue 4/5/21	Mon 17/5/21		465	0 days		100%
465	CFS-1150		Identification, decommission and demolition of the existing kiosk		86	0 days	NA	NA	26 days	Tue 18/5/21	Fri 18/6/21	Tue 18/5/21	Fri 18/6/21	464	466,479	0 days		100%
466	CFS-1100		Provision of Flowmeter chamber, gate valve chamber and associated seweage		85	0 days	NA	NA	90 days	Sat 19/6/21	Tue 5/10/21	Sat 19/6/21	NA	465	467,469FF	-101 days		40%
467	CFS-1200		Decommission and demolistion of the existing pump pit and associated sewerage manholes and pipes		86	0 days	NA	NA	40 days	Wed 6/10/21	Mon 22/11/21	NA	NA	466	470	-101 days		0%
468	CFS-1250		Diversion of Leachate Rising Main near SSSH		241	0 days	NA	NA	18 days	Wed 28/7/21	Wed 18/8/21	NA	NA	469SF	480	18 days		0%
469	CFS-1300		E&M provision of flowmeter chamber and associated sewerage for effluent and sewage from SSSH		256	0 days	NA	NA	40 days	Wed 18/8/21	Tue 5/10/21	NA	NA	466FF	470,468SF	-61 days		0%
470	CFS-2000		Excavation for Raft Footing (800cu.m)			65 days	NA	NA	44 days	Tue 23/11/21	Sat 15/1/22	NA	NA	469,467	471	-101 days		0%
471	CFS-2800		Plate load test at bottom level of compacted generall fill(2no.)			12 days	NA	NA	7 days	Mon 17/1/22	Mon 24/1/22	NA	NA	470	472	-101 days		0%
472	CFS-2900		Soil Replacement (14 layers SRT)			0 days	NA	NA	42 edays	Mon 24/1/22	Mon 7/3/22	NA	NA	471	473	-124.42 edays		0%
473	CFS-3000		Plate load test at bottom level of base slab (3no.)			28 days	Fri 4/6/21	Mon 21/6/21	7 days	Tue 8/3/22	Tue 15/3/22	NA	NA	472	474FF-3 mons,475	-101 days		0%
474	CFS-3900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Tue 23/11/21	Tue 23/11/21	NA	NA	473FF-3 mons	475SS-3 emons	59 days		0%
475	CFS-4000	KD1J	R.C. structure works			120 days	NA	NA	70 days	Wed 16/3/22	Mon 13/6/22	NA	NA	473,474SS-3 emons	477,476,51FF,521FF,520FF	-101 days	2	0%
476	CFS-5000	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Mon 13/9/21	Mon 13/9/21	0 days	Mon 13/6/22	Mon 13/6/22	NA	NA	475	51FF	-101 days		0%
477	CFS-6000	SW1	ABWF works + BS works			90 days	Tue 14/9/21	Mon 3/1/22	90 days	Tue 14/6/22	Wed 28/9/22	NA	NA	475	56FF	405 days		0%
478	**CCS-1000**	*	**Chemical System No.1 (8)***			**168 days**	**Mon 1/2/21**	**Thu 26/8/21**	**386 days**	**Sat 12/6/21**	**Wed 28/9/22**	**Sat 12/6/21**	**NA**			**891 days**		**4%**
479	CCS-1310		Demolition of SSSH Pump Pit and Associated Sewerage System		086	0 days	NA	NA	26 days	Sat 19/6/21	Tue 20/7/21	Sat 19/6/21	NA	465	481	54 days		38%
480	CCS-1110		Removal of existing Leachate Rising Main near SSSH		241	0 days	NA	NA	12 days	Wed 18/8/21	Tue 31/8/21	NA	NA	468	481	18 days		0%
481	CCS-1100		Excavation for Raft Footing (20cu.m)			10 days	Mon 1/2/21	Thu 11/2/21	10 days	Wed 1/9/21	Sat 11/9/21	NA	NA	480,479	485FF-3 emons,486,482	18 days		0%
482	CCS-1080		Plate load test at bottom level of compacted generall fill(2no.)			9 days	NA	NA	9 days	Mon 13/9/21	Thu 23/9/21	NA	NA	481	483	18 days		0%
483	CCS-1090		Soil Replacement (10 layers SRT)			0 days	NA	NA	30 edays	Thu 23/9/21	Sat 23/10/21	NA	NA	482	484	23.58 edays		0%
484	CCS-1200		Plate load test at bottom level of base slab (1no.)			5 days	Tue 16/2/21	Wed 3/3/21	5 days	Mon 25/10/21	Fri 29/10/21	NA	NA	483	486,493	19 days		0%
485	CCS-1190		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Sat 12/6/21	Sat 12/6/21	Sat 12/6/21	Sat 12/6/21	481FF-3 emons	486SS-3 emons	0 days		100%
486	CCS-1300	KD1J	R.C. structure works			45 days	Mon 15/3/21	Mon 10/5/21	60 days	Sat 30/10/21	Tue 11/1/22	NA	NA	481,485SS-3 emons,484	51FF,488,487	20 days	2	0%
487	CCS-1400	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Mon 10/5/21	Mon 10/5/21	0 days	Tue 11/1/22	Tue 11/1/22	NA	NA	486	51FF	20 days		0%
488	CCS-1500	SW1	ABWF works + BS works			90 days	Tue 11/5/21	Thu 26/8/21	90 days	Tue 14/6/22	Wed 28/9/22	NA	NA	189,141,486,522SS	56FF	405 days		0%
489	**CDS-0000**	*	**Deodorization System No.3A (7)***			**149 days**	**Tue 16/11/21**	**Sat 21/5/22**	**105 days**	**Thu 5/8/21**	**Wed 8/12/21**	**NA**	**NA**			**90 days**		**0%**
490	CDS-2000		Excavation for Raft Footing (400cu.m)			20 days	Tue 16/11/21	Wed 8/12/21	20 days	Sat 14/8/21	Tue 7/9/21	NA	NA	491SF		1205 days		0%
491	CDS-2008		Plate load test at bottom level of compacted generall fill(2no.)			10 days	NA	NA	10 days	Tue 7/9/21	Sat 18/9/21	NA	NA	492SF	490SF	1195 days		0%
492	CDS-2100		Soil Replacement (14 layers SRT)			0 days	NA	NA	42 edays	Sat 18/9/21	Sat 30/10/21	NA	NA	493SF	491SF	1425.42 edays		0%
493	CDS-3000		Plate load test at bottom level of base slab (1no.)			4 days	Thu 9/12/21	Fri 24/12/21	4 days	Sat 30/10/21	Wed 3/11/21	NA	NA	484	494FF-3 emons,495,492SF,500FS	-19 days		0%
494	CDS-3900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Thu 5/8/21	Thu 5/8/21	NA	NA	493FF-3 emons	495SS-3 emons	150 days		0%
495	CDS-4000	KD1J	Footing works			20 days	Tue 4/1/22	Wed 26/1/22	30 days	Thu 4/11/21	Wed 8/12/21	NA	NA	493,494SS-3 emons	496,51FF	46 days		0%
496	CDS-5000	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Wed 26/1/22	Wed 26/1/22	0 days	Wed 8/12/21	Wed 8/12/21	NA	NA	495	51FF	46 days		0%
497	**CCS-2000**	*	**Chemical System No.2 (11)**			**189 days**	**Thu 4/3/21**	**Thu 21/10/21**	**300 days**	**Fri 24/9/21**	**Wed 28/9/22**	**NA**	**NA**	**462**		**48 days**		**0%**
498	CCS-2100		Excavation for Raft Footing (100cu.m)			15 days	Thu 4/3/21	Sat 20/3/21	14 days	Fri 24/9/21	Mon 11/10/21	NA	NA	499SF		1177 days		0%
499	CCS-2110		Soil Replacement (8 layers SRT)			0 days	NA	NA	24 edays	Wed 6/10/21	Sat 30/10/21	NA	NA	500SF	498SF	1425.42 edays		0%
500	CCS-2200		Plate load test (2no.)			14 days	Mon 22/3/21	Fri 9/4/21	15 days	Sat 30/10/21	Tue 16/11/21	NA	NA	493FS-4 days	501FF-3 emons,502,499SF,510FS	-19 days		0%
501	CCS-2290		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Fri 24/9/21	Fri 24/9/21	NA	NA	500FF-3 emons	502SS-3 emons	108 days		0%
502	CCS-2300	KD1J	R.C. structure works			45 days	Tue 11/5/21	Mon 5/7/21	45 days	Wed 17/11/21	Tue 11/1/22	NA	NA	500,501SS-3 emons	503,51FF,504,505	20 days	2	0%
503	CCS-2400	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Mon 5/7/21	Mon 5/7/21	0 days	Tue 11/1/22	Tue 11/1/22	NA	NA	502	51FF	20 days		0%
504	CCS-2500	SW1	ABWF works + BS works			90 days	Tue 6/7/21	Thu 21/10/21	90 days	Tue 14/6/22	Wed 28/9/22	NA	NA	189,141,502,522SS	56FF	405 days		0%
505	CCS-2600	SW1	Demolition of existing chemical room			60 days	Tue 6/7/21	Mon 13/9/21	60 days	Wed 12/1/22	Fri 25/3/22	NA	NA	502	56FF	556 days		0%
506	**CTC-0000**	*	**Temporary Chemical Dosing System (5)**			**191 days**	**Tue 22/6/21**	**Thu 10/2/22**	**330 days**	**Thu 19/8/21**	**Wed 28/9/22**	**NA**	**NA**			**89 days**		**0%**
507	CTC-2000		Excavation for Raft Footing (300cu.m)			30 days	Tue 22/6/21	Tue 27/7/21	30 days	Thu 26/8/21	Sat 2/10/21	NA	NA	508SF		1185 days		0%
508	CTC-2080		Plate load test at bottom level of compacted generall fill(2no.)			9 days	NA	NA	9 days	Sat 2/10/21	Wed 13/10/21	NA	NA	509SF	507SF	1176 days		0%
509	CTC-2100		Soil Replacement (10 layers SRT)			0 days	NA	NA	30 edays	Wed 13/10/21	Fri 12/11/21	NA	NA	510SF	508SF	1412.42 edays		0%
510	CTC-1000		Plate load test at bottom level of base slab (1no.)			5 days	Wed 28/7/21	Thu 12/8/21	5 days	Fri 12/11/21	Wed 17/11/21	NA	NA	500FS-4 days	509SF,511FF-3 emons,512	19 days		0%
511	CTC-2900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Thu 19/8/21	Thu 19/8/21	NA	NA	510FF-3 emons	512SS-3 emons	138 days		0%
512	CTC-3000	KD1J	R.C. structure works			30 days	Tue 14/9/21	Thu 21/10/21	45 days	Thu 18/11/21	Wed 12/1/22	NA	NA	511SS-3 emons,510	513,51FF,514	19 days	1	0%
513	CTC-4000	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Thu 21/10/21	Thu 21/10/21	0 days	Wed 12/1/22	Wed 12/1/22	NA	NA	512	51FF	19 days		0%
514	CTC-5000	SW1	ABWF works + BS works			90 days	Fri 22/10/21	Thu 10/2/22	90 days	Tue 14/6/22	Wed 28/9/22	NA	NA	189,141,512,522SS	56FF	405 days		0%
515	**CFB-0000**	*	**Fire Hydrant and Booster Pump Room (13)***			**177 days**	**Fri 13/8/21**	**Thu 17/3/22**	**193 days**	**Sat 5/2/22**	**Wed 28/9/22**	**NA**	**NA**			**-28 days**		**0%**
516	CFB-1000		Excavation for Raft Footing (200cu.m)			30 days	Fri 13/8/21	Thu 16/9/21	30 days	Wed 23/2/22	Wed 30/3/22	NA	NA	517SF		1039 days		0%
517	CFB-1100		Soil Replacement (7 layers SRT)			0 days	NA	NA	21 edays	Wed 30/3/22	Wed 20/4/22	NA	NA	518SF	516SF	1253.42 edays		0%
518	CFB-2000		Plate load test (3no.)			14 days	Fri 17/9/21	Tue 5/10/21	14 days	Wed 20/4/22	Sat 7/5/22	NA	NA	520SF	519FF-3 emons,517SF	1011 days		0%
519	CFB-2900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Sat 5/2/22	Sun 6/2/22	NA	NA	518FF-3 emons		1083 days		0%
520	CFB-3000	KD1J	R.C. structure works			30 days	Fri 22/10/21	Thu 25/11/21	30 days	Sat 7/5/22	Mon 13/6/22	NA	NA	475FF	521,522,51FF,518SF	-101 days	1	0%
521	CFB-4000	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Thu 25/11/21	Thu 25/11/21	0 days	Mon 13/6/22	Mon 13/6/22	NA	NA	520,475FF	51FF	-101 days		0%
522	CFB-5000	SW1	ABWF works + BS works			90 days	Fri 26/11/21	Thu 17/3/22	90 days	Tue 14/6/22	Wed 28/9/22	NA	NA	520,189,141	56FF,514SS,504SS,488SS,460SS	405 days		0%
523	**CDS1-0000**		**Deodorization System No.1 (6)***			**64 days**	**NA**	**NA**	**105 days**	**Tue 10/5/22**	**Tue 13/9/22**	**NA**	**NA**			**418 days**		**0%**
524	CDS1-1000		Excavation for Raft Footing (400cu.m)			20 days	NA	NA	20 days	Wed 8/6/22	Thu 30/6/22	NA	NA	522	525	420 days		0%
525	CDS1-1080		Plate load test at bottom level of compacted generall fill(2no.)			10 days	NA	NA	10 days	Sat 2/7/22	Wed 13/7/22	NA	NA	524	526	420 days		0%
526	CDS1-1100		Soil Replacement (7 layers SRT)			0 days	NA	NA	21 edays	Wed 13/7/22	Wed 3/8/22	NA	NA	525	527	513.58 edays		0%
527	CDS1-2000		Plate load test at bottom level of base slab (1no.)			4 days	NA	NA	4 days	Thu 4/8/22	Mon 8/8/22	NA	NA	526	529,528FF-3 emons	418 days		0%
528	CDS1-2900		Receiving of Civil Requirements from PM			0 days	NA	NA	0 days	Tue 10/5/22	Tue 10/5/22	NA	NA	527FF-3 emons	529SS-3 emons	523 days		0%
529	CDS1-3000	SW1	Footing works			30 days	NA	NA	30 days	Tue 9/8/22	Tue 13/9/22	NA	NA	527,528SS-3 emons	530,56FF	418 days		0%
530	CDS1-4000	SW1	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	NA	NA	0 days	Tue 13/9/22	Tue 13/9/22	NA	NA	529	56FF	418 days		0%
531	**CAA-0000**	*	**Additional and Alternation Works for Existing Facilities (B-7A, B-8, B-8A)**			**662 days**	**Wed 29/1/20**	**Fri 22/4/22**	**918 days**	**Mon 1/6/20**	**Thu 6/7/23**	**Mon 1/6/20**	**NA**			**269 days**		**64%**



ID	Activity ID	Key Date	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
532	**CAA-1000**	**KD2B**	**B-8A Alternation works for existing Air Blower House No.2 (Pipeline CHTA, approx. 133m DN800 D.I.)**			**180 days**	**Wed 29/1/20**	**Thu 3/9/20**	**246 days**	**Mon 1/6/20**	**Fri 26/3/21**	**Mon 1/6/20**	**Fri 26/3/21**	**15,142,184**	**53FF**	**0 days**		**100%**
533	CAA-1100		Change of pipe bridge design		(057)	0 days	NA	NA	135 days	Mon 1/6/20	Tue 10/11/20	Mon 1/6/20	Tue 10/11/20		536,537,538	0 days		100%
534	CAA-1200		Additional inspection pit to verilify the connection point to existing (CE xxx)			0 days	NA	NA	135 days	Mon 1/6/20	Tue 10/11/20	Mon 1/6/20	Tue 10/11/20		536,537,538	0 days		100%
535	CAA-1300		Additional MBV installation (CE xxx)			0 days	NA	NA	135 days	Mon 1/6/20	Tue 10/11/20	Mon 1/6/20	Tue 10/11/20		536,537,538	0 days		100%
536	CAA-1400		Alternation works for existing Air Blower House No.2 (Pipeline CHTA, approx. 133m DN800 D.I.)			180 days	Wed 29/1/20	Thu 3/9/20	111 days	Wed 11/11/20	Fri 26/3/21	Wed 11/11/20	Fri 26/3/21	533,534,535	53FF	0 days		100%
537	CAA-1500	KD2B	Re-alignmnet of DN800 Temporary Air Main (CHTA) and Provision of FRP Staircases		064	0 days	NA	NA	111 days	Wed 11/11/20	Fri 26/3/21	Wed 11/11/20	Fri 26/3/21	533,534,535	53FF	0 days		100%
538	CAA-1600	KD2B	Elevated Section of DN800 Temporary Air Main (CHTA) across existing Bioreactor's Distibution Chamber No. 2		062	0 days	NA	NA	111 days	Wed 11/11/20	Fri 26/3/21	Wed 11/11/20	Fri 26/3/21	533,534,535	53FF,539	0 days		100%
539	CAA-2000	KD1I	B7-A Alternation works for existing Power House			122 days	Fri 4/9/20	Sat 30/1/21	0 days	Wed 11/11/20	Fri 29/1/21	Wed 11/11/20	Fri 29/1/21	13FS-1 day,122,160,162,176,538	50FF,540FS+356 days	0 days		100%
540	CAA-2100	SW3	Additional works for Power House		224	0 days	NA	NA	60 days	Thu 14/4/22	Wed 29/6/22	NA	NA	539FS+356 days	58FF	570 days		0%
541	CAA-3000	SW3	Alternation works for existing Membrane Facilities Building No.1			360 days	Mon 1/2/21	Fri 22/4/22	360 days	Tue 19/4/22	Thu 6/7/23	NA	NA	14FS-1 day,175	58FF	269 days		0%
542	**CUU-0000**	*	**External Underground Service, Utilities, Road/Drain**			**1091 days**	**Mon 24/2/20**	**Sat 28/10/23**	**1192 days**	**Mon 27/4/20**	**Mon 13/5/24**	**Mon 27/4/20**	**NA**	**16**		**-88 days**		**46%**
543	CUU-1000	KD2A	Process Pipes CHR and CHS (approx. 93m twin DN900 D.I.)		33, 222, 255	325 days	Mon 24/2/20	Sat 27/3/21	379 days	Mon 27/4/20	Wed 4/8/21	Mon 27/4/20	NA	184,142	554SS+48 days,552SS+48 days,55	-39 days		99%
544	CUU-1000a		Special Treatment for Removing the Existing Abandoned DN1800 By-pass Pipe and the Concrete Mass in Conflict with the Proposed Sheetpile wall for trenching work of Process Pipeline CHR and CHS		33	0 days	NA	NA	54 days	Sat 30/5/20	Mon 3/8/20	Sat 30/5/20	Mon 3/8/20			0 days		100%
545	CUU-1000b		Trenchless work for Process Pipes CHR and CHS (approx. 7m twin DN900 D.I.)		255	0 days	NA	NA	60 days	Thu 25/2/21	Mon 10/5/21	Thu 25/2/21	Mon 10/5/21		52FF	0 days		100%
546	CUU-1001		Removal of Abandoned DN1800 Concrete Pipe and Concrete Mass near Existing UV Disinfection Channel at CHR & CHS Process Pipe Works Area		033	0 days	NA	NA	43 days	Thu 2/7/20	Thu 20/8/20	Thu 2/7/20	Thu 20/8/20			0 days		100%
547	CUU-1002		Grouting for Sheung Shui Slaughter House Boundary Walls along CHR & CHS Pipes Works Area		222	0 days	NA	NA	20 days	Fri 23/10/20	Mon 16/11/20	Fri 23/10/20	Mon 16/11/20			0 days		100%
548	CUU-1004		Delay Delivery of DI pipes due to COVID-19		(076)	0 days	NA	NA	75 days	Tue 22/12/20	Thu 25/3/21	Tue 22/12/20	Thu 25/3/21		549FF	0 days		100%
549	CUU-2000	SW2	Process Pipes, including CHT, CHX, CHY, CHPS1&2, CHS S1&2, CHDO 1&2, CHPSW 1-8, CHTPS, CHPT1&2, CHTFT 1&2, CHTE, CHTD, Foam Collection & Surplus activated sludge rising main pipe			550 days	Mon 29/6/20	Fri 6/5/22	457 days	Mon 19/10/20	Fri 6/5/22	Mon 19/10/20	NA	184,142,548FF,543SS+48 days	57FF,555,550SS+250 days	63 days		51%
550	CUU-2100	SW2	Remaining Process Pipes			0 days	NA	NA	270 days	Mon 23/8/21	Fri 22/7/22	NA	NA	549SS+250 days	57FF	0 days		0%
551	CUU-3000	SW2	Remaining Drainage			550 days	Mon 29/6/20	Fri 6/5/22	520 days	Mon 19/10/20	Fri 22/7/22	Mon 19/10/20	NA	184,142	555,57FF	0 days	5	45%
552	CUU-4000	SW2	Remaining Sewerage			550 days	Mon 29/6/20	Fri 6/5/22	520 days	Mon 19/10/20	Fri 22/7/22	Mon 19/10/20	NA	184,142,543SS+48 days	555,57FF	0 days	5	45%
553	CUU-5000	SW2	Remaining Waterworks			550 days	Mon 29/6/20	Fri 6/5/22	520 days	Mon 19/10/20	Fri 22/7/22	Mon 19/10/20	NA	184,142,543SS+48 days	557FS+2 days,57FF	0 days	5	45%
554	CUU-6000	SW2	Remaining Cable Ducts			550 days	Mon 29/6/20	Fri 6/5/22	520 days	Mon 19/10/20	Fri 22/7/22	Mon 19/10/20	NA	184,142,543SS+48 days	555,57FF	0 days	5	45%
555	CUU-7000	KD3A	Roadworks			540 days	Fri 31/12/21	Sat 28/10/23	440 days	Mon 7/11/22	Mon 13/5/24	NA	NA	554,551,552,549,352,399,334,433	54FF,558SS+123 days	-88 days	5	0%
556	**CLW-0000**	*	**Landscaping Works**			**854 days**	**Wed 11/5/22**	**Thu 27/3/25**	**946 days**	**Tue 26/7/22**	**Wed 24/9/25**	**NA**	**NA**	**16**		**0 days**		**0%**
557	CLW-1000	KD3A	Irrigation System			120 days	Wed 11/5/22	Fri 30/9/22	120 days	Tue 26/7/22	Thu 15/12/22	NA	NA	553FS+2 days,184	558,54FF	1 day		0%
558	CLW-2000	SW3	Hard Landscaping Works			220 days	Mon 3/10/22	Mon 3/7/23	214 days	Tue 11/4/23	Sat 23/12/23	NA	NA	557,555SS+123 days	559,58FF	-88 days	5	0%
559	CLW-3000	SW3	Soft Landscaping Works			220 days	Tue 4/7/23	Tue 26/3/24	214 days	Wed 27/12/23	Tue 24/9/24	NA	NA	558,143	560,58FF	-88 days	5	0%
560	CLW-4000	DLP	Establishment Works (365 days)			294 days	Wed 27/3/24	Thu 27/3/25	365 days	Wed 25/9/24	Wed 24/9/25	NA	NA	559,143	59FF,60FF	0 days	5	0%



Activity ID	Activity Name	Remaining Duration	BL Start (DE/2018/03 R3)	BL Finish (DE/2018/03 R3)	Start	Finish	Total Float	Activity % Complete
SWH - Main Works Stage 1 Sidestream Treatment Facilities & E&M Wo		1170	23-Oct-19	04-Apr-24	23-Oct-19 A	04-Apr-24	0	
Contract Data		1170	23-Oct-19	04-Apr-24	23-Oct-19 A	04-Apr-24	0	
Starting Date & Completion Date		1170	23-Oct-19	04-Apr-24	23-Oct-19 A	04-Apr-24	0	
AS000110	Whole Contract Period (1626 days from starting date)	1170	23-Oct-19	04-Apr-24	23-Oct-19 A	04-Apr-24	0	28.04%
Access Date		489	23-Oct-19	24-May-22	23-Oct-19 A	24-May-22	0	
AS001100	Portion C-1A (within 480 to 550 days from starting date)	94	23-Oct-19	24-Apr-21	23-Oct-19 A	24-Apr-21	0	82.91%
AS001200	Portion C-2A (within 705 to 795 days from starting date)	339	23-Oct-19	25-Dec-21	23-Oct-19 A	25-Dec-21	0	57.36%
AS001300	Portion C-2B (within 765 to 855 days from starting date)	399	23-Oct-19	23-Feb-22	23-Oct-19 A	23-Feb-22	0	53.33%
AS001400	Portion C-2C (within 715 to 805 days from starting date)	349	23-Oct-19	04-Jan-22	23-Oct-19 A	04-Jan-22	0	56.65%
AS001500	Portion C-2D (within 825 to 945 days from starting date)	489	23-Oct-19	24-May-22	23-Oct-19 A	24-May-22	0	48.25%
AS001600	Portion C-3 (within 615 to 705 days from starting date)	249	23-Oct-19	26-Sep-21	23-Oct-19 A	26-Sep-21	0	64.68%
AS001800	Portion B-2 (within 615 to 705 days from starting date) (SS by NCE-NCE-219)	249	23-Oct-19	26-Sep-21	23-Oct-19 A	26-Sep-21	0	64.68%
Key Dates		1028	23-Oct-19	14-Nov-23	23-Oct-19 A	14-Nov-23	0	
AS002040	KD2B Submission of Remaining Civil Requirement Dwgs, Elec. Schematic Dwgs of SD Bldg, SD & DC, CHP Bldg, etc.	5	23-Oct-19	25-Jan-21	23-Oct-19 A	25-Jan-21*	0	98.92%
AS002050	KD3A Completion of Phase 1 Commissioning of Sidestream Treatment Facilities (1140d after Portion B-1 Access)	1028	30-Sep-20	14-Nov-23	30-Sep-20 A	14-Nov-23*	0	9.9%
Completion Date		1170	23-Oct-19	04-Apr-24	23-Oct-19 A	04-Apr-24	0	
Section 2 - Complete All Designs (exclude Sec. 1 & 3)		145	23-Oct-19	14-Jun-21	23-Oct-19 A	14-Jun-21	0	
AS003200	Contract Duration of Section 2	145	23-Oct-19	14-Jun-21	23-Oct-19 A	14-Jun-21	0	75.87%
Section 3 - Complete Design, Construction & T&C for Sidestream Facilities		1170	23-Oct-19	04-Apr-24	23-Oct-19 A	04-Apr-24	0	
AS003300	Contract Duration of Section 3	1170	23-Oct-19	04-Apr-24	23-Oct-19 A	04-Apr-24	0	28.04%
Section 4 - Complete Construction & T&C for UV System No.1 & EP Station No. 1		430	23-Oct-19	26-Mar-22	23-Oct-19 A	26-Mar-22	0	
AS003400	Contract Duration of Section 4	430	23-Oct-19	26-Mar-22	23-Oct-19 A	26-Mar-22	0	51.47%
Section 5 - Complete all remaining Works (incl. T&C)		1170	23-Oct-19	04-Apr-24	23-Oct-19 A	04-Apr-24	0	
AS003500	Contract Duration of Section 5	1170	23-Oct-19	04-Apr-24	23-Oct-19 A	04-Apr-24	0	28.04%
Preliminaries		1169	23-Oct-19	03-Apr-24	23-Oct-19 A	03-Apr-24	1	
Mobilisation		1169	23-Oct-19	03-Apr-24	23-Oct-19 A	03-Apr-24	1	
AS010100	Provison of Equipment / Facilities for the PM's Office	1169	23-Oct-19	03-Apr-24	23-Oct-19 A	03-Apr-24	1	28.06%
AS010210	Design, Procurement & PO & Construction of Contractor's Storage Area (Works Area WA3)	75	20-Nov-19	05-Apr-21	20-Nov-19 A	05-Apr-21	2	85.09%
AS010220	Maintain Contractor's Site Office	1112	28-Nov-20	06-Feb-24	28-Nov-20 A	06-Feb-24	2	4.63%
AS010230a	Maintain Contractor's Storage Area	1037	06-Apr-21	06-Feb-24	06-Apr-21	06-Feb-24	2	0%
Site Preliminaries		1169	23-Oct-19	03-Apr-24	23-Oct-19 A	03-Apr-24	1	
AS010300	Provision of Insurance, Third Party Insurances & PII	1169	23-Oct-19	03-Apr-24	23-Oct-19 A	03-Apr-24	1	28.06%
AS010400	Provision of 2 Contract Car for the Use of the PM & Supervisor	1169	23-Oct-19	03-Apr-24	23-Oct-19 A	03-Apr-24	1	28.06%
AS010420a	Provision of 1 Electric Car for the Use of the PM & Supervisor	1169	22-Jan-20	03-Apr-24	22-Jan-20 A	03-Apr-24	1	23.79%
AS010600	Provision of Photographs	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%
AS010700	Provision of Environmental Mitigation Measures	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%
AS010800	Provision of Air Pollution Abatment	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%



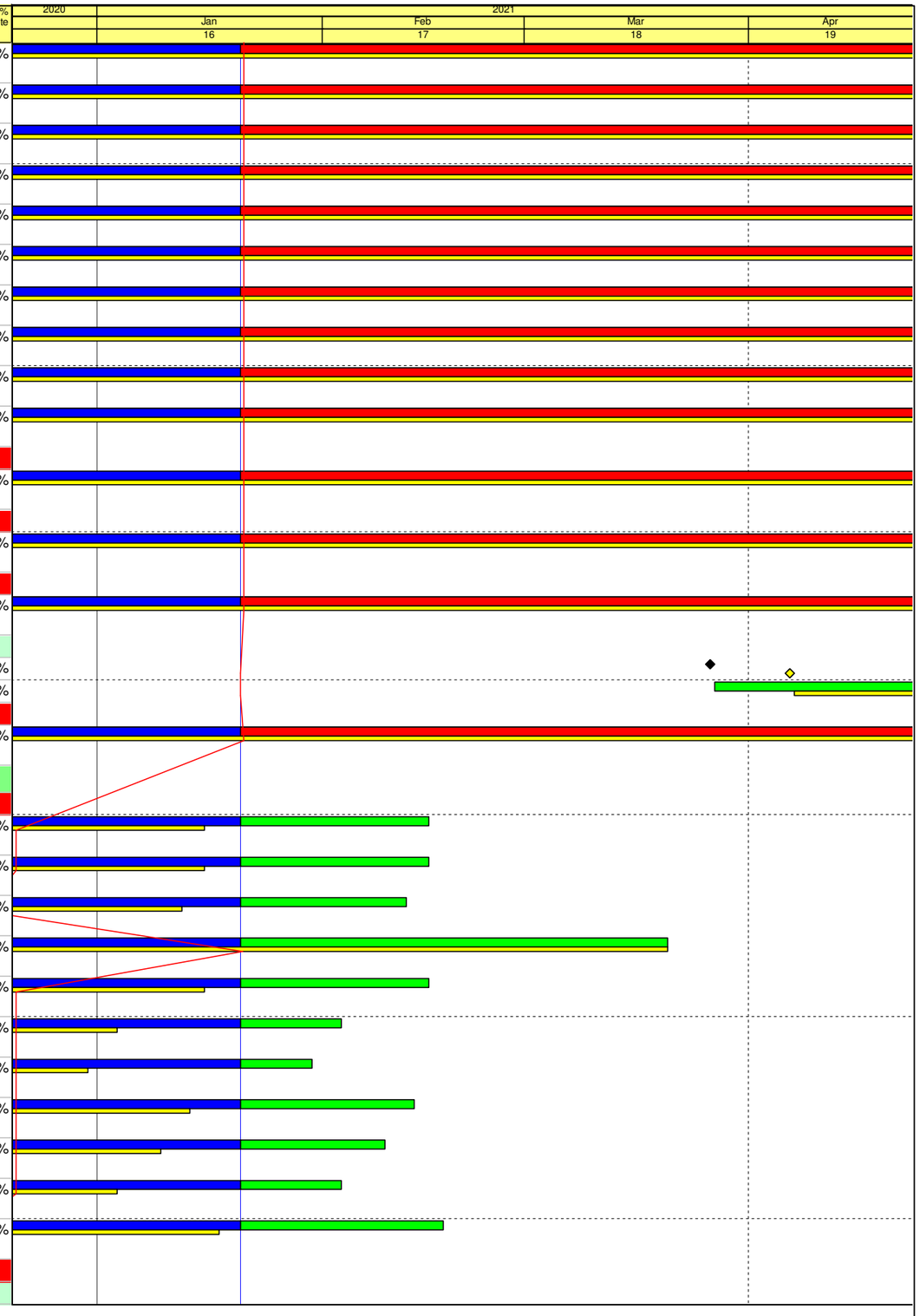
Remaining Work
Critical Activity
Milestone
Actual Progress
Project Baseline Bar
Baseline Milestone
Actual Milestone

Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Sidestream Treatment Facilities and E&M Works for Sluge Treatment Faciliteis
3 Months Rolling Programme (Based on RP Rev.5) as at 20 Jan 2021

Based on DE/2018/03 R3

Date	Revision	Checked	Approved
20-Jan-21	Rev.0	LT	KM

Activity ID	Activity Name	Remaining Duration	BL Start (DE/2018/03 R3)	BL Finish (DE/2018/03 R3)	Start	Finish	Total Float	Activity % Complete
AS010900	Provision of Noise Pollution Abatment	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%
AS011000	Provision of Wastewater Pollution Abatement	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%
AS011100	Provision of Wastement Management	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%
AS011200	Provision of Monitoring the Use of Ultra Low Sulphur Diesel	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%
AS011300	Provision of Environmental Management	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%
AS011400	Provision of Site Management Plan for Trip Ticket System	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%
AS011600	Provision of Systematic Risk Management	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%
AS011700	Provision of Site Liaison Group & Community Liaison Group	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%
AS011800	Provision of 24-Hour Telephone Line	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%
AS012400	Provision of ICE for Certification of the Design, Cal, Dwgs, Plans and all relevant Doc and Process Commissioning	1168	20-Nov-19	02-Apr-24	20-Nov-19 A	02-Apr-24	2	26.82%
Site Upkeeping		1142	20-Nov-19	07-Mar-24	20-Nov-19 A	07-Mar-24	2	
AS013100	General Site Upkeeping of the Site	1142	20-Nov-19	07-Mar-24	20-Nov-19 A	07-Mar-24	2	27.26%
Safety and Environmental Management		1142	10-Nov-19	07-Mar-24	10-Nov-19 A	07-Mar-24	2	
AS013200	Construction Health and Safety Plan	1142	10-Nov-19	07-Mar-24	10-Nov-19 A	07-Mar-24	2	27.72%
Compliance with BEAM Requirements		1142	10-Nov-19	07-Mar-24	10-Nov-19 A	07-Mar-24	2	
AS013400	BEAM Plus	1142	10-Nov-19	07-Mar-24	10-Nov-19 A	07-Mar-24	2	27.72%
CHP Building		30	06-Apr-21	06-May-21	26-Mar-21	25-Apr-21	221	
AS013450f	Material Submission & Design Calculation Approved	0		06-Apr-21		26-Mar-21	80	0%
AS013460f	Issued approved submission & Calculation to Cinotech	30	07-Apr-21	06-May-21	27-Mar-21	25-Apr-21	221	0%
BIM		1112	24-Mar-20	06-Feb-24	24-Mar-20 A	06-Feb-24	2	
AS011920a	Review & Update BIM Execution Plan & BIM Model	1112	24-Mar-20	06-Feb-24	24-Mar-20 A	06-Feb-24	2	21.41%
Section 2 - Complete All Designs (exclude Sec. 1 & 3)		127	18-May-20	27-May-21	25-Mar-20 A	27-May-21	12	
Major Plant & Materials Procurement		59	18-May-20	20-Mar-21	18-May-20 A	20-Mar-21	80	
AS023200	Procurement & PO for Biogas Booster and Transfer Pumps (S7)	26	17-Jul-20	15-Jan-21	17-Jul-20 A	15-Feb-21	22	85.79%
AS023210	Procurement & PO for H2S Removal System (S7)	26	17-Jul-20	15-Jan-21	17-Jul-20 A	15-Feb-21	22	85.79%
AS023240	Procurement & PO for Waste Gas Burning System (S9)	23	17-Jul-20	12-Jan-21	17-Jul-20 A	12-Feb-21	116	84.67%
AS023340	Procurement & PO for 380V Switchboard (S17)	59	21-Nov-20	20-Mar-21	21-Nov-20 A	20-Mar-21	65	50.83%
AS023380	Procurement & PO for Control & Monitoring System (S18)	26	17-Jul-20	15-Jan-21	17-Jul-20 A	15-Feb-21	113	85.79%
AS023400	Procurement & PO for Lifting Appliances (S19)	14	18-May-20	03-Jan-21	18-May-20 A	03-Feb-21	47	93.94%
AS023520	Procurement & PO for External Sludge Transfer Pump (S21)	10	18-May-20	30-Dec-20	18-May-20 A	30-Jan-21	129	95.59%
AS023560	Procurement & PO for Ferric Chloride Storage Tank (S21)	24	17-Jul-20	13-Jan-21	17-Jul-20 A	13-Feb-21	115	86.74%
AS023580	Procurement & PO for Ferric Chloride Dosing Pump (S21)	20	18-May-20	09-Jan-21	18-May-20 A	09-Feb-21	119	91.56%
AS023600	Procurement & PO for Temporary Primary Sludge Pump (S21)	14	18-May-20	03-Jan-21	18-May-20 A	03-Feb-21	125	93.94%
AS023620b	Procurement & PO for Genset	28	03-Jun-20	17-Jan-21	22-Jul-20 A	17-Feb-21	111	84.44%
Design & Submission		127	18-May-20	27-May-21	25-Mar-20 A	27-May-21	12	
General Arrangement Drawings		59	18-May-20	20-Mar-21	26-May-20 A	20-Mar-21	80	



Remaining Work
Critical Activity
Milestone
Actual Progress
Project Baseline Bar
Baseline Milestone
Actual Milestone

Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Sidestream Treatment Facilities and E&M Works for Sluge Treatment Faciliteis
3 Months Rolling Programme (Based on RP Rev.5) as at 20 Jan 2021

Based on DE/2018/03 R3			
Date	Revision	Checked	Approved
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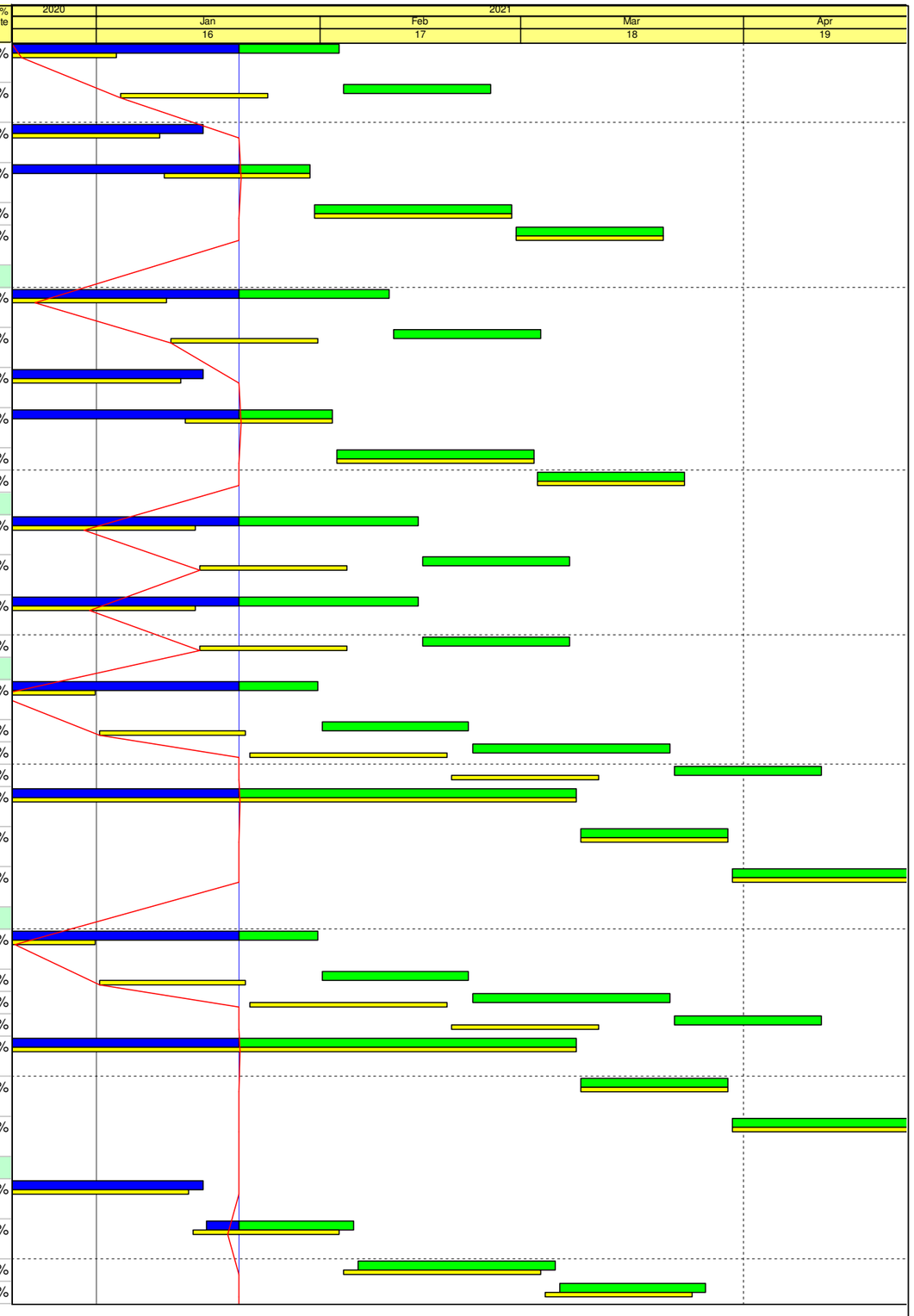
Activity ID	Activity Name	Remaining Duration	BL Start (DE/2018/03 R3)	BL Finish (DE/2018/03 R3)	Start	Finish	Total Float	Activity % Complete
AS020120	Revise & Re-submit General Arrangement Drawings (from formation level up to +8mPD)	14	08-Jun-20	03-Jan-21	26-May-20 A	03-Feb-21	104	93.72%
AS020130	Review & Accept of General Arrangement Drawings by PM (from formation level up to +8mPD)	21	04-Jan-21	24-Jan-21	04-Feb-21	24-Feb-21	104	0%
AS020140a	Prepare & Submit General Arrangement Drawings (remaining)	0	18-May-20	09-Jan-21	17-Jul-20 A	15-Jan-21 A		100%
AS020150a	Review & Comment on General Arrangement Drawings by PM (remaining)	10	10-Jan-21	30-Jan-21	05-Sep-20 A	30-Jan-21	10	52.38%
AS020160a	Revise & Re-submit General Arrangement Drawings (remaining)	28	31-Jan-21	27-Feb-21	31-Jan-21	27-Feb-21	10	0%
AS020170a	Review & Accept of General Arrangement Drawings by PM (remaining)	21	28-Feb-21	20-Mar-21	28-Feb-21	20-Mar-21	10	0%
Civil & Dimensional / Tolerance Requirement Drawings		62	23-Jun-20	23-Mar-21	26-May-20 A	23-Mar-21	77	
AS020220	Revise & Re-submit Civil Requirement Drawings (from formation level up to +8mPD)	21	23-Jun-20	10-Jan-21	26-May-20 A	10-Feb-21	97	90.87%
AS020230	Review & Accept of Civil Requirement Drawings by PM (from formation level up to +8mPD)	21	11-Jan-21	31-Jan-21	11-Feb-21	03-Mar-21	97	0%
AS020300	Prepare & Submit Civil Requirement Drawings (remaining) -KD2B	0	15-Sep-20	12-Jan-21	15-Sep-20 A	15-Jan-21 A		100%
AS020310	Review & Comment on Civil Requirement Drawings by PM (remaining)	13	13-Jan-21	02-Feb-21	28-Sep-20 A	02-Feb-21	77	38.1%
AS020320	Revise & Re-submit Civil Requirement Drawings (remaining)	28	03-Feb-21	02-Mar-21	03-Feb-21	02-Mar-21	77	0%
AS020330	Review & Accept of Civil Requirement Drawings by PM (remaining)	21	03-Mar-21	23-Mar-21	03-Mar-21	23-Mar-21	77	0%
Electrical Schematic Drawings		46	24-Jul-20	04-Feb-21	25-Mar-20 A	07-Mar-21	93	
AS021240	Revise & Re-submit Elec. Schematic Drawings (from formation level up to +8mPD)	25	12-Aug-20	14-Jan-21	09-May-20 A	14-Feb-21	93	90.04%
AS021250	Review & Accept of Elec. Schematic Drawings by PM (from formation level up to +8mPD)	21	15-Jan-21	04-Feb-21	15-Feb-21	07-Mar-21	93	0%
AS021320	Revise & Re-submit Elec. Schematic Drawings (remaining)	25	24-Jul-20	14-Jan-21	25-Mar-20 A	14-Feb-21	93	91.55%
AS021330	Review & Accept of Elec. Schematic Drawings by PM (remaining)	21	15-Jan-21	04-Feb-21	15-Feb-21	07-Mar-21	93	0%
Sludge Screening (SSc)		96	02-Jul-20	26-Apr-21	02-Jul-20 A	26-Apr-21	22	
AS022200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	11	02-Jul-20	31-Dec-20	02-Jul-20 A	31-Jan-21	13	92.67%
AS022210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	01-Jan-21	21-Jan-21	01-Feb-21	21-Feb-21	13	0%
AS022220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	28	22-Jan-21	18-Feb-21	22-Feb-21	21-Mar-21	13	0%
AS022230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	19-Feb-21	11-Mar-21	22-Mar-21	11-Apr-21	13	0%
AS022300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	47	10-Sep-20	08-Mar-21	10-Sep-20 A	08-Mar-21	22	73.89%
AS022310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	09-Mar-21	29-Mar-21	09-Mar-21	29-Mar-21	22	0%
AS022320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	28	30-Mar-21	26-Apr-21	30-Mar-21	26-Apr-21	22	0%
Sludge Thickening (STh)		96	02-Jul-20	26-Apr-21	02-Jul-20 A	26-Apr-21	22	
AS032200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	11	02-Jul-20	31-Dec-20	02-Jul-20 A	31-Jan-21	13	93.89%
AS032210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	01-Jan-21	21-Jan-21	01-Feb-21	21-Feb-21	13	0%
AS032220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	28	22-Jan-21	18-Feb-21	22-Feb-21	21-Mar-21	13	0%
AS032230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	19-Feb-21	11-Mar-21	22-Mar-21	11-Apr-21	13	0%
AS032300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	47	10-Sep-20	08-Mar-21	10-Sep-20 A	08-Mar-21	22	73.89%
AS032310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	09-Mar-21	29-Mar-21	09-Mar-21	29-Mar-21	22	0%
AS032320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	28	30-Mar-21	26-Apr-21	30-Mar-21	26-Apr-21	22	0%
Thermal Hydrolysis Process (THP)		65	18-May-20	14-Apr-21	18-May-20 A	26-Mar-21	74	
AS042200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	0	18-May-20	13-Jan-21	18-May-20 A	15-Jan-21 A		100%
AS042210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	16	14-Jan-21	03-Feb-21	16-Jan-21 A	05-Feb-21	29	23.81%
AS042220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	28	04-Feb-21	03-Mar-21	06-Feb-21	05-Mar-21	29	0%
AS042230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	04-Mar-21	24-Mar-21	06-Mar-21	26-Mar-21	29	0%



JEC

File Name: DE/2018/03 3M 210120
Layout: DE1803 (Progress -3M)
TASK filters: 3 Months Rolling (1803 SWH), CE.

Remaining Work
Critical Activity
Milestone
Actual Progress
Project Baseline Bar
Baseline Milestone
Actual Milestone

Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Sidestream Treatment Facilities and E&M Works for Sluge Treatment Faciliteis
3 Months Rolling Programme (Based on RP Rev.5) as at 20 Jan 2021

Based on DE/2018/03 R3			
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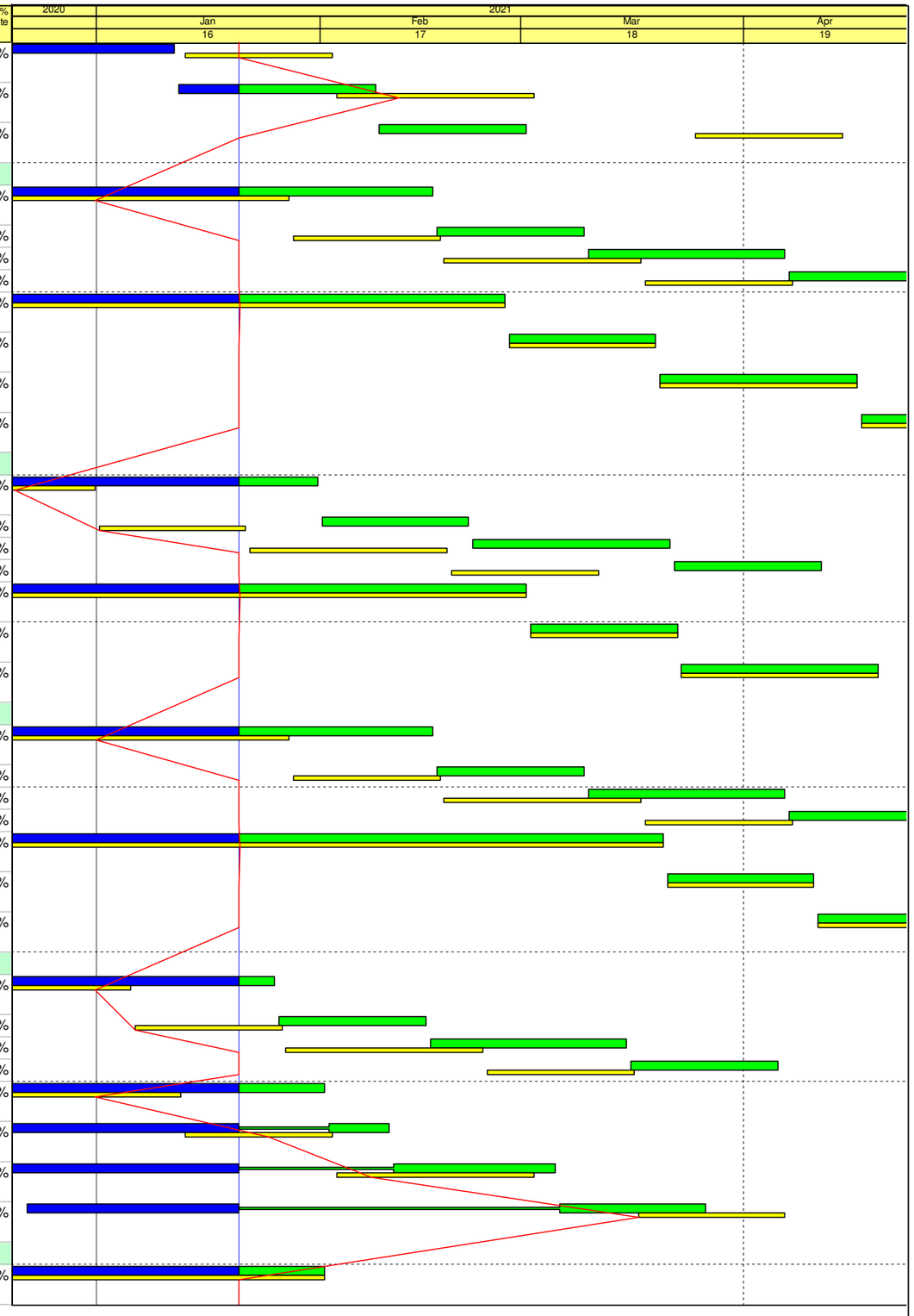
AS042310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	0	13-Jan-21	02-Feb-21	08-Dec-20 A	11-Jan-21 A		100%
AS042320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	19	03-Feb-21	02-Mar-21	12-Jan-21 A	08-Feb-21	99	32.14%
AS042330	Review & Accept of the Schedule, Design Cal. & Fixing Details of Equipment	21	25-Mar-21	14-Apr-21	09-Feb-21	01-Mar-21	99	0%
Sludge Digestion (SDi)		107	01-Aug-20	07-May-21	01-Aug-20 A	07-May-21	10	
AS052200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	27	01-Aug-20	27-Jan-21	01-Aug-20 A	16-Feb-21	20	85%
AS052210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	28-Jan-21	17-Feb-21	17-Feb-21	09-Mar-21	20	0%
AS052220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	28	18-Feb-21	17-Mar-21	10-Mar-21	06-Apr-21	20	0%
AS052230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	18-Mar-21	07-Apr-21	07-Apr-21	27-Apr-21	20	0%
AS052300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	37	31-Aug-20	26-Feb-21	31-Aug-20 A	26-Feb-21	10	79.44%
AS052310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	27-Feb-21	19-Mar-21	27-Feb-21	19-Mar-21	10	0%
AS052320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	28	20-Mar-21	16-Apr-21	20-Mar-21	16-Apr-21	10	0%
AS052330	Review & Accept of the Schedule, Design Cal. & Fixing Details of Equipment	21	17-Apr-21	07-May-21	17-Apr-21	07-May-21	10	0%
Sludge Dewatering (SDe)		89	02-Jul-20	19-Apr-21	02-Jul-20 A	19-Apr-21	29	
AS062200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	11	02-Jul-20	31-Dec-20	02-Jul-20 A	31-Jan-21	13	93.89%
AS062210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	01-Jan-21	21-Jan-21	01-Feb-21	21-Feb-21	13	0%
AS062220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	28	22-Jan-21	18-Feb-21	22-Feb-21	21-Mar-21	13	0%
AS062230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	19-Feb-21	11-Mar-21	22-Mar-21	11-Apr-21	13	0%
AS062300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	40	03-Sep-20	01-Mar-21	31-Aug-20 A	01-Mar-21	29	77.78%
AS062310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	02-Mar-21	22-Mar-21	02-Mar-21	22-Mar-21	29	0%
AS062320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	28	23-Mar-21	19-Apr-21	23-Mar-21	19-Apr-21	29	0%
Biogas Storage & Pre-Treatment (BSPT)		108	31-Aug-20	08-May-21	31-Aug-20 A	08-May-21	10	
AS072200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	27	31-Aug-20	27-Jan-21	31-Aug-20 A	16-Feb-21	21	82%
AS072210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	28-Jan-21	17-Feb-21	17-Feb-21	09-Mar-21	21	0%
AS072220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	28	18-Feb-21	17-Mar-21	10-Mar-21	06-Apr-21	21	0%
AS072230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	18-Mar-21	07-Apr-21	07-Apr-21	27-Apr-21	21	0%
AS072300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	59	22-Oct-20	20-Mar-21	22-Oct-20 A	20-Mar-21	10	60.67%
AS072310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	21-Mar-21	10-Apr-21	21-Mar-21	10-Apr-21	10	0%
AS072320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	28	11-Apr-21	08-May-21	11-Apr-21	08-May-21	10	0%
Combined Heat & Power Generation (CHP)		75	18-May-20	06-Apr-21	18-May-20 A	05-Apr-21	60	
AS082200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	5	18-May-20	05-Jan-21	18-May-20 A	25-Jan-21	19	97.85%
AS082210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	06-Jan-21	26-Jan-21	26-Jan-21	15-Feb-21	19	0%
AS082220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	28	27-Jan-21	23-Feb-21	16-Feb-21	15-Mar-21	19	0%
AS082230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	24-Feb-21	16-Mar-21	16-Mar-21	05-Apr-21	19	0%
AS082300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	12	17-Jul-20	12-Jan-21	17-Jul-20 A	01-Feb-21	70	93.33%
AS082310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	9	13-Jan-21	02-Feb-21	03-Aug-20 A	10-Feb-21	70	57.14%
AS082320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	23	03-Feb-21	02-Mar-21	12-Aug-20 A	05-Mar-21	70	17.86%
AS082330	Review & Accept of the Schedule, Design Cal. & Fixing Details of Equipment	21	17-Mar-21	06-Apr-21	22-Dec-20 A	26-Mar-21	70	0%
Waste Gas Burning System (WGB)		106	04-Nov-20	06-May-21	15-Oct-20 A	06-May-21	12	
AS092200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	12	04-Nov-20	01-Feb-21	15-Oct-20 A	01-Feb-21	12	86.67%



Remaining Work
Critical Activity
Milestone
Actual Progress
Project Baseline Bar
Baseline Milestone
Actual Milestone

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Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
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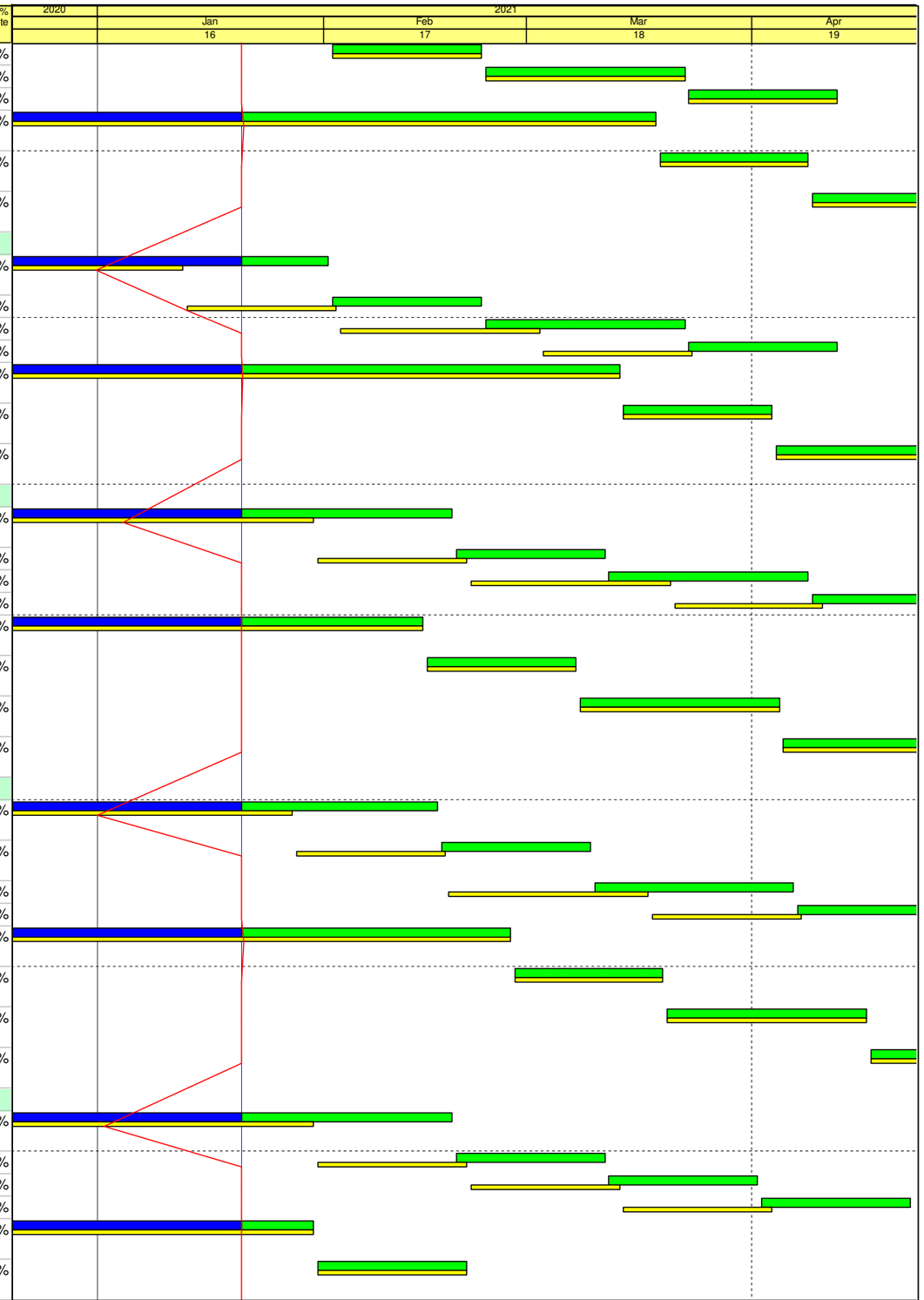
Activity ID	Activity Name	Remaining Duration	BL Start (DE/2018/03 R3)	BL Finish (DE/2018/03 R3)	Start	Finish	Total Float	Activity % Complete
AS092210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	02-Feb-21	22-Feb-21	02-Feb-21	22-Feb-21	12	0%
AS092220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	28	23-Feb-21	22-Mar-21	23-Feb-21	22-Mar-21	12	0%
AS092230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	23-Mar-21	12-Apr-21	23-Mar-21	12-Apr-21	12	0%
AS092300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	57	19-Dec-20	18-Mar-21	29-Nov-20 A	18-Mar-21	12	36.67%
AS092310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	19-Mar-21	08-Apr-21	19-Mar-21	08-Apr-21	12	0%
AS092320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	28	09-Apr-21	06-May-21	09-Apr-21	06-May-21	12	0%
Plant Service Water System (PSW)		101	16-Aug-20	01-May-21	16-Aug-20 A	01-May-21	17	
AS122200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	12	16-Aug-20	12-Jan-21	16-Aug-20 A	01-Feb-21	12	92%
AS122210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	13-Jan-21	02-Feb-21	02-Feb-21	22-Feb-21	12	0%
AS122220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	28	03-Feb-21	02-Mar-21	23-Feb-21	22-Mar-21	12	0%
AS122230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	03-Mar-21	23-Mar-21	23-Mar-21	12-Apr-21	12	0%
AS122300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	52	15-Oct-20	13-Mar-21	15-Oct-20 A	13-Mar-21	17	65.33%
AS122310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	14-Mar-21	03-Apr-21	14-Mar-21	03-Apr-21	17	0%
AS122320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	28	04-Apr-21	01-May-21	04-Apr-21	01-May-21	17	0%
Surplus Activated Sludge Pumping Station (SAS)		99	01-Aug-20	25-Apr-21	01-Aug-20 A	29-Apr-21	40	
AS142200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	29	01-Aug-20	30-Jan-21	01-Aug-20 A	18-Feb-21	40	85.64%
AS142210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	31-Jan-21	20-Feb-21	19-Feb-21	11-Mar-21	40	0%
AS142220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	28	21-Feb-21	20-Mar-21	12-Mar-21	08-Apr-21	40	0%
AS142230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	21-Mar-21	10-Apr-21	09-Apr-21	29-Apr-21	40	0%
AS142300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	25	16-Aug-20	14-Feb-21	16-Aug-20 A	14-Feb-21	44	86.34%
AS142310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	15-Feb-21	07-Mar-21	15-Feb-21	07-Mar-21	44	0%
AS142320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	28	08-Mar-21	04-Apr-21	08-Mar-21	04-Apr-21	44	0%
AS142330	Review & Accept of the Schedule, Design Cal. & Fixing Details of Equipment	21	05-Apr-21	25-Apr-21	05-Apr-21	25-Apr-21	44	0%
Control and Monitoring System		107	30-Oct-20	07-May-21	30-Oct-20 A	07-May-21	32	
AS182200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	27	30-Oct-20	27-Jan-21	30-Oct-20 A	16-Feb-21	42	70%
AS182210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	28-Jan-21	17-Feb-21	17-Feb-21	09-Mar-21	42	0%
AS182220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	28	18-Feb-21	17-Mar-21	10-Mar-21	06-Apr-21	42	0%
AS182230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	18-Mar-21	07-Apr-21	07-Apr-21	27-Apr-21	42	0%
AS182300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	37	14-Dec-20	26-Feb-21	14-Dec-20 A	26-Feb-21	32	50.67%
AS182310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	27-Feb-21	19-Mar-21	27-Feb-21	19-Mar-21	32	0%
AS182320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	28	20-Mar-21	16-Apr-21	20-Mar-21	16-Apr-21	32	0%
AS182330	Review & Accept of the Schedule, Design Cal. & Fixing Details of Equipment	21	17-Apr-21	07-May-21	17-Apr-21	07-May-21	32	0%
Lifting Appliances		92	17-Jul-20	24-Apr-21	17-Jul-20 A	22-Apr-21	32	
AS192200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	29	17-Jul-20	30-Jan-21	17-Jul-20 A	18-Feb-21	32	85.35%
AS192210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	31-Jan-21	20-Feb-21	19-Feb-21	11-Mar-21	32	0%
AS192220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	21	21-Feb-21	13-Mar-21	12-Mar-21	01-Apr-21	32	0%
AS192230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	14-Mar-21	03-Apr-21	02-Apr-21	22-Apr-21	32	0%
AS192300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	10	30-Oct-20	30-Jan-21	30-Oct-20 A	30-Jan-21	42	89.25%
AS192310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	31-Jan-21	20-Feb-21	31-Jan-21	20-Feb-21	42	0%



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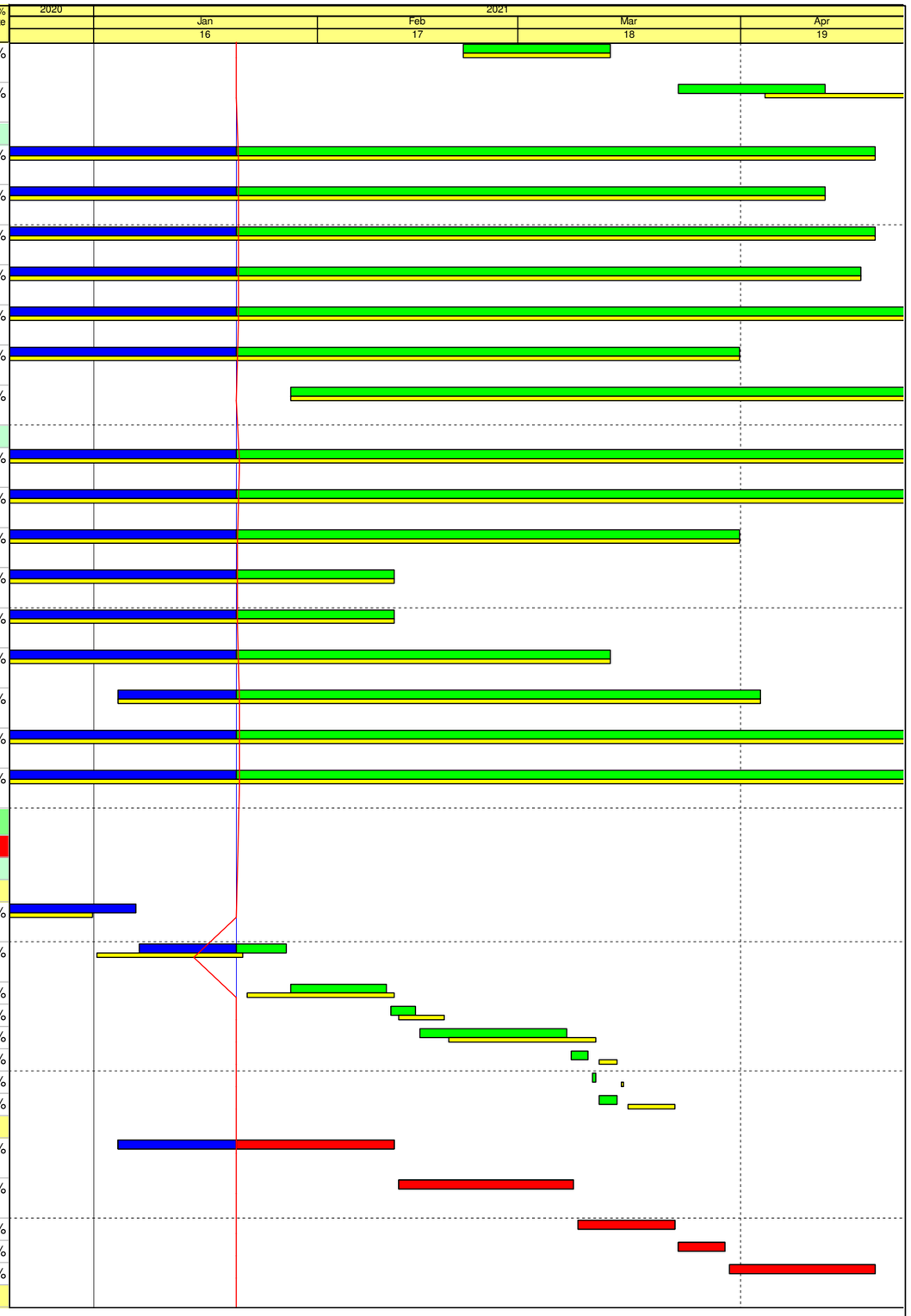
AS192320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	21	21-Feb-21	13-Mar-21	21-Feb-21	13-Mar-21	42	0%
AS192330	Review & Accept of the Schedule, Design Cal. & Fixing Details of Equipment	21	04-Apr-21	24-Apr-21	23-Mar-21	12-Apr-21	42	0%
Building Services		97	03-Oct-20	27-Apr-21	02-Jul-20 A	27-Apr-21	42	
AS201100	Submit & Accept BS Works Design & Dwgs for Sludge Dewatering Building	89	21-Nov-20	19-Apr-21	21-Nov-20 A	19-Apr-21	50	40.67%
AS201200	Submit & Accept BS Works Design & Dwgs for CHP Building	82	14-Nov-20	12-Apr-21	14-Nov-20 A	12-Apr-21	57	45.33%
AS201300	Submit & Accept BS Works Design & Dwgs for Sludge Digester & Distribution Chamber	89	21-Nov-20	19-Apr-21	21-Nov-20 A	19-Apr-21	50	40.67%
AS201500	Submit & Accept BS Works Design & Dwgs for Workshop No. 2	87	19-Nov-20	17-Apr-21	02-Jul-20 A	17-Apr-21	52	42%
AS201700	Submit & Accept BS Works Design & Dwgs for Other Facilities	97	29-Nov-20	27-Apr-21	29-Nov-20 A	27-Apr-21	42	35.33%
AS201800	Submit & Accept BS Works Design & Dwgs for FS Installation	70	03-Oct-20	31-Mar-21	02-Jul-20 A	31-Mar-21	69	61.11%
AS201900	Submit & Accept BS Works Design & Dwgs for Outdoor Lighting Installation	90	28-Jan-21	27-Apr-21	28-Jan-21	27-Apr-21	42	0%
Miscellaneous		127	05-Oct-20	27-May-21	05-Oct-20 A	27-May-21	12	
AS211100	Submit & Accept Design & Dwgs for DO System	112	14-Dec-20	12-May-21	14-Dec-20 A	12-May-21	27	25.33%
AS211200	Submit & Accept Design & Dwgs for Sewage Pumping Station	100	30-Oct-20	30-Apr-21	30-Oct-20 A	30-Apr-21	39	45.36%
AS211300	Submit & Accept Design & Dwgs for Process Water Pumping System	70	05-Oct-20	31-Mar-21	05-Oct-20 A	31-Mar-21	69	60.67%
AS211400	Submit & Accept Design & Dwgs for External Sludge Transfer Pumping System	22	14-Nov-20	11-Feb-21	14-Nov-20 A	11-Feb-21	117	75.56%
AS211500	Submit & Accept Design & Dwgs for THP Cooling Water Pumping Station	22	14-Nov-20	11-Feb-21	14-Nov-20 A	11-Feb-21	117	75.56%
AS211600	Submit & Accept Design & Dwgs for Ferric Chloride Dosing System	52	14-Nov-20	13-Mar-21	14-Nov-20 A	13-Mar-21	87	56.67%
AS211700	Submit & Accept Design & Dwgs for Temporary Primary Sludge Pumping Facility	73	04-Jan-21	03-Apr-21	04-Jan-21 A	03-Apr-21	66	18.89%
AS211800	Submit & Accept Design & Dwgs for Gas Detection System	127	29-Nov-20	27-May-21	29-Nov-20 A	27-May-21	12	29.44%
AS211900	Submit & Accept Design & Dwgs for CCTV System	127	29-Nov-20	27-May-21	29-Nov-20 A	27-May-21	12	29.44%
Section 3 - Complete Design, Construction & T&C for Sidestream Fac		1144	06-Jun-20	09-Mar-24	07-Jun-20 A	09-Mar-24	0	
Major Subcontractor / Supplier Procurement		106	26-Oct-20	22-Mar-21	26-Oct-20 A	06-May-21	0	
Civil & Building Contractor		106	26-Oct-20	22-Mar-21	26-Oct-20 A	06-May-21	0	
For Pre-drilling & Post-drilling		53	26-Oct-20	22-Mar-21	26-Oct-20 A	14-Mar-21	39	
AS512430e	Submit Tender proprosal of Civil Contractor (Pre-drilling & Post-drilling)	0	26-Oct-20	31-Dec-20	26-Oct-20 A	06-Jan-21 A		100%
AS512440e	Review & Accept the Tender proprosal of Civil Contractor (Pre-drilling & Post-drilling)	7	01-Jan-21	21-Jan-21	07-Jan-21 A	27-Jan-21	39	66.67%
AS512450e	Tender Invitation of Civil Contractor (Pre-drilling & Post-drilling)	14	22-Jan-21	11-Feb-21	28-Jan-21	10-Feb-21	39	0%
AS512460e	Submission of Tender Report	4	12-Feb-21	18-Feb-21	11-Feb-21	14-Feb-21	39	0%
AS512470e	Review & Accept the Tender Report by PM	21	19-Feb-21	11-Mar-21	15-Feb-21	07-Mar-21	39	0%
AS512480e	Contract Preparation	3	12-Mar-21	14-Mar-21	08-Mar-21	10-Mar-21	39	0%
AS512490e	Civil Contractor (Pre-drilling & Post-drilling) Award	1	15-Mar-21	15-Mar-21	11-Mar-21	11-Mar-21	39	0%
AS512500e	Mobilisation	3	16-Mar-21	22-Mar-21	12-Mar-21	14-Mar-21	39	0%
For Piling		89			04-Jan-21 A	19-Apr-21	0	
AS512510f	Submit Tender proprosal of Civil Contractor (Piling)	22			04-Jan-21 A	11-Feb-21	0	43.59%
AS512520f	Review & Accept the Tender proprosal of Civil Contractor (Pre-drilling & Post-drilling)	25			12-Feb-21	08-Mar-21	0	0%
AS512530f	Tender Invitation of Civil Contractor (Pre-drilling & Post-drilling)	14			09-Mar-21	22-Mar-21	0	0%
AS512540f	Submission of Tender Report	7			23-Mar-21	29-Mar-21	0	0%
AS512550f	Review & Accept the Tender Report by PM	21			30-Mar-21	19-Apr-21	0	0%
For Main Civil Works		51			17-Mar-21	06-May-21	0	



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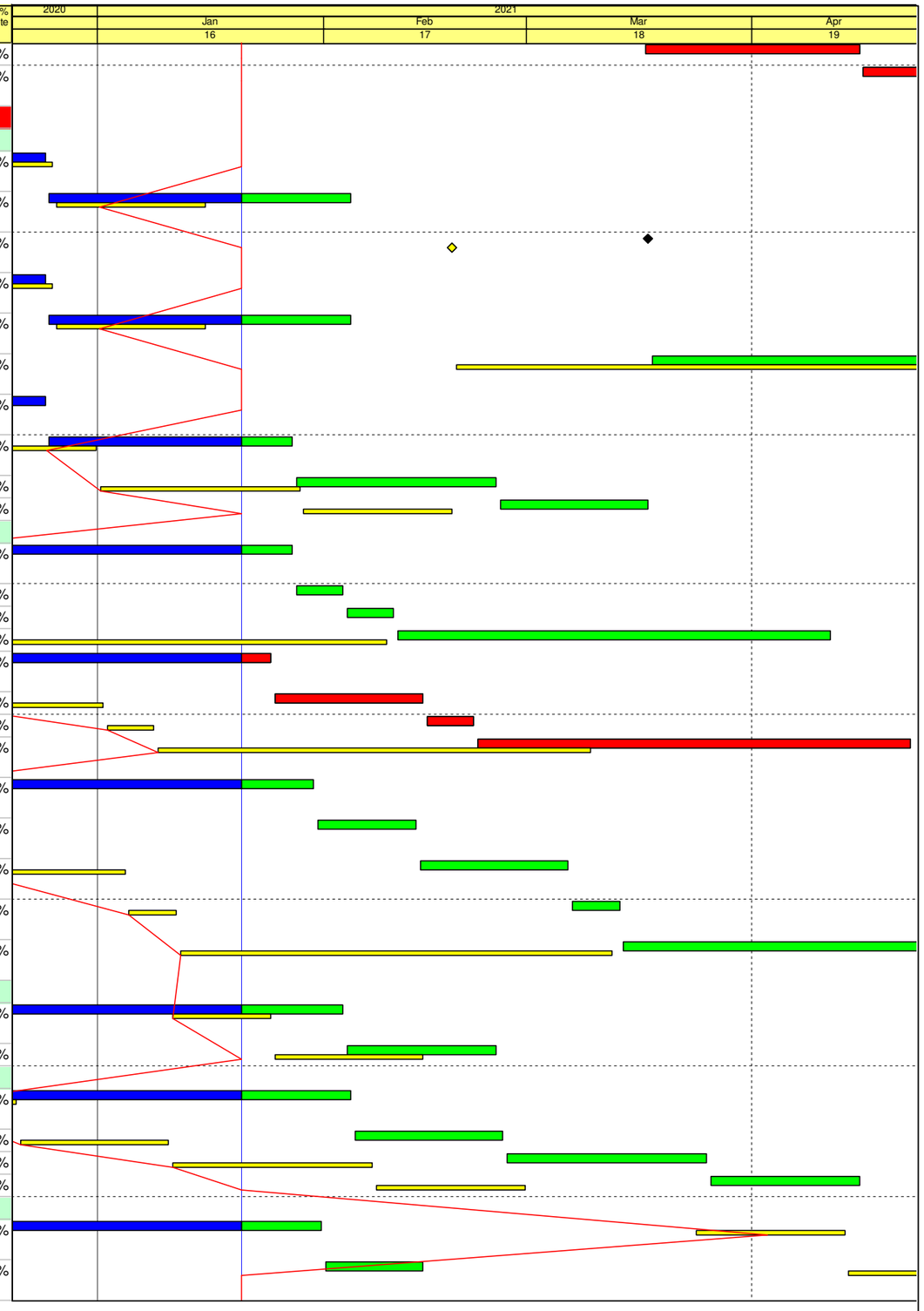
AS512590f	Submit Tender proprosal of Civil Contractor (Piling)	30			17-Mar-21*	15-Apr-21	0	0%
AS512600f	Review & Accept the Tender proprosal of Civil Contractor (Pre-drilling & Post-drilling)	21			16-Apr-21	06-May-21	0	0%
Design & Submission		386	06-Jun-20	14-Jan-22	07-Jun-20 A	10-Feb-22	243	
Architectural		386	03-Nov-20	14-Jan-22	03-Nov-20 A	10-Feb-22	243	
AS160120	Revise & Re-submit Building Layout Plan	0	28-Nov-20	25-Dec-20	28-Nov-20 A	24-Dec-20 A		100%
AS160130	Review & Accept of Building Layout Plan by PM	15	26-Dec-20	15-Jan-21	25-Dec-20 A	04-Feb-21	77	28.57%
AS160190e	Cooordination Meeting with DSD (Employer) for the Architectural Drawing	0		18-Feb-21		17-Mar-21	243	0%
AS160220	Revise & Re-submit Architectural Design / Drawings	0	28-Nov-20	25-Dec-20	28-Nov-20 A	24-Dec-20 A		100%
AS160230	Review & Accept of Architectural Design / Drawings by PM	15	26-Dec-20	15-Jan-21	25-Dec-20 A	04-Feb-21	284	28.57%
AS160240	Review & Accept of Architectural Design / Drawings by DSD (incl. VCAB) & DAP of ArchSD	330	19-Feb-21	14-Jan-22	18-Mar-21	10-Feb-22	243	0%
AS160500	Prepare & Submit ABWF Works Drawings	0	03-Nov-20	10-Dec-20	03-Nov-20 A	24-Dec-20 A		100%
AS160510	Review & Comment on ABWF Works Drawings by PM	7	11-Dec-20	31-Dec-20	25-Dec-20 A	27-Jan-21	243	66.67%
AS160520	Revise & Re-submit ABWF Works Drawings	28	01-Jan-21	28-Jan-21	28-Jan-21	24-Feb-21	243	0%
AS160530	Review & Accept of ABWF Works Drawings by PM	21	29-Jan-21	18-Feb-21	25-Feb-21	17-Mar-21	243	0%
Civil / Structural		112	24-Oct-20	12-Mar-21	24-Oct-20 A	12-May-21	190	
AS160260e	Revise & Re-submit Loading Plan to ICE	7	24-Oct-20	27-Nov-20	24-Oct-20 A	27-Jan-21	11	89.23%
AS160270e	Review & Accept of Loading Plan by ICE	7	28-Nov-20	04-Dec-20	28-Jan-21	03-Feb-21	11	0%
AS160280e	Prepare & Submit Loading Plan to PM	7	05-Dec-20	11-Dec-20	04-Feb-21	10-Feb-21	11	0%
AS160290e	Review & Accept of Loading Plan by PM & DSD (incl. BCM)	60	12-Dec-20	09-Feb-21	11-Feb-21	11-Apr-21	11	0%
AS160320	Revise & Re-submit Foundation Design / Drawings to ICE & PM	4	28-Nov-20	11-Dec-20	28-Nov-20 A	24-Jan-21	0	71.43%
AS160330	Review & Accept of Foundation Design / Drawings by ICE & PM	21	12-Dec-20	01-Jan-21	25-Jan-21	14-Feb-21	0	0%
AS160340e	Prepare & Submit Foundation Design / Drawings to DSD (incl. BCM)	7	02-Jan-21	08-Jan-21	15-Feb-21	21-Feb-21	0	0%
AS160350e	Review & Accept of Foundation Design / Drawings by DSD (incl. BCM)	60	09-Jan-21	09-Mar-21	22-Feb-21	22-Apr-21	0	0%
AS160410	Review & Comment on Substructure / Superstructure Design / Drawings by ICE & PM	10	06-Nov-20	30-Nov-20	06-Nov-20 A	30-Jan-21	72	81.82%
AS160420	Revise & Re-submit Substructure / Superstructure Design / Drawings to ICE & PM	14	01-Dec-20	14-Dec-20	31-Jan-21	13-Feb-21	190	0%
AS160430	Review & Accept of Substructure / Superstructure Design / Drawings by ICE & PM	21	15-Dec-20	04-Jan-21	14-Feb-21	06-Mar-21	190	0%
AS160440e	Prepare & Submit Substructure / Superstructure Design / Drawings to DSD (incl. BCM)	7	05-Jan-21	11-Jan-21	07-Mar-21	13-Mar-21	190	0%
AS160450e	Review & Accept of Substructure / Superstructure Design / Drawings by DSD (incl. BCM)	60	12-Jan-21	12-Mar-21	14-Mar-21	12-May-21	190	0%
Process Design		35	11-Jan-21	14-Feb-21	09-Dec-20 A	24-Feb-21	413	
AS512240e	Revise & Re-submit E&M Works (Process) Design Drawings	14	11-Jan-21	24-Jan-21	09-Dec-20 A	03-Feb-21	413	0%
AS512250e	Review & Accept of E&M Works (Process) Design Drawings by PM	21	25-Jan-21	14-Feb-21	04-Feb-21	24-Feb-21	413	0%
E&M Design		85	06-Jun-20	28-Feb-21	07-Jun-20 A	15-Apr-21	217	
AS151100	Prepare & Submit General Arrangement Drawings	15	06-Jun-20	20-Dec-20	07-Jun-20 A	04-Feb-21	212	93.39%
AS151110	Review & Comment on General Arrangement Drawings by PM	21	21-Dec-20	10-Jan-21	05-Feb-21	25-Feb-21	217	0%
AS151120	Revise & Re-submit General Arrangement Drawings	28	11-Jan-21	07-Feb-21	26-Feb-21	25-Mar-21	217	0%
AS151130	Review & Accept of General Arrangement Drawings by PM	21	08-Feb-21	28-Feb-21	26-Mar-21	15-Apr-21	217	0%
BS		46	01-Feb-21	18-May-21	11-Dec-20 A	07-Mar-21	467	
AS201405e	Review & Comment on BS Works Design & Dwgs for Sidestream Treatment Facilities by PM	11	24-Mar-21	13-Apr-21	11-Dec-20 A	31-Jan-21	467	47.62%
AS201410e	Revise & Re-submit BS Works Design & Dwgs for Sidestream Treatment Facilities	14	14-Apr-21	27-Apr-21	01-Feb-21	14-Feb-21	467	0%



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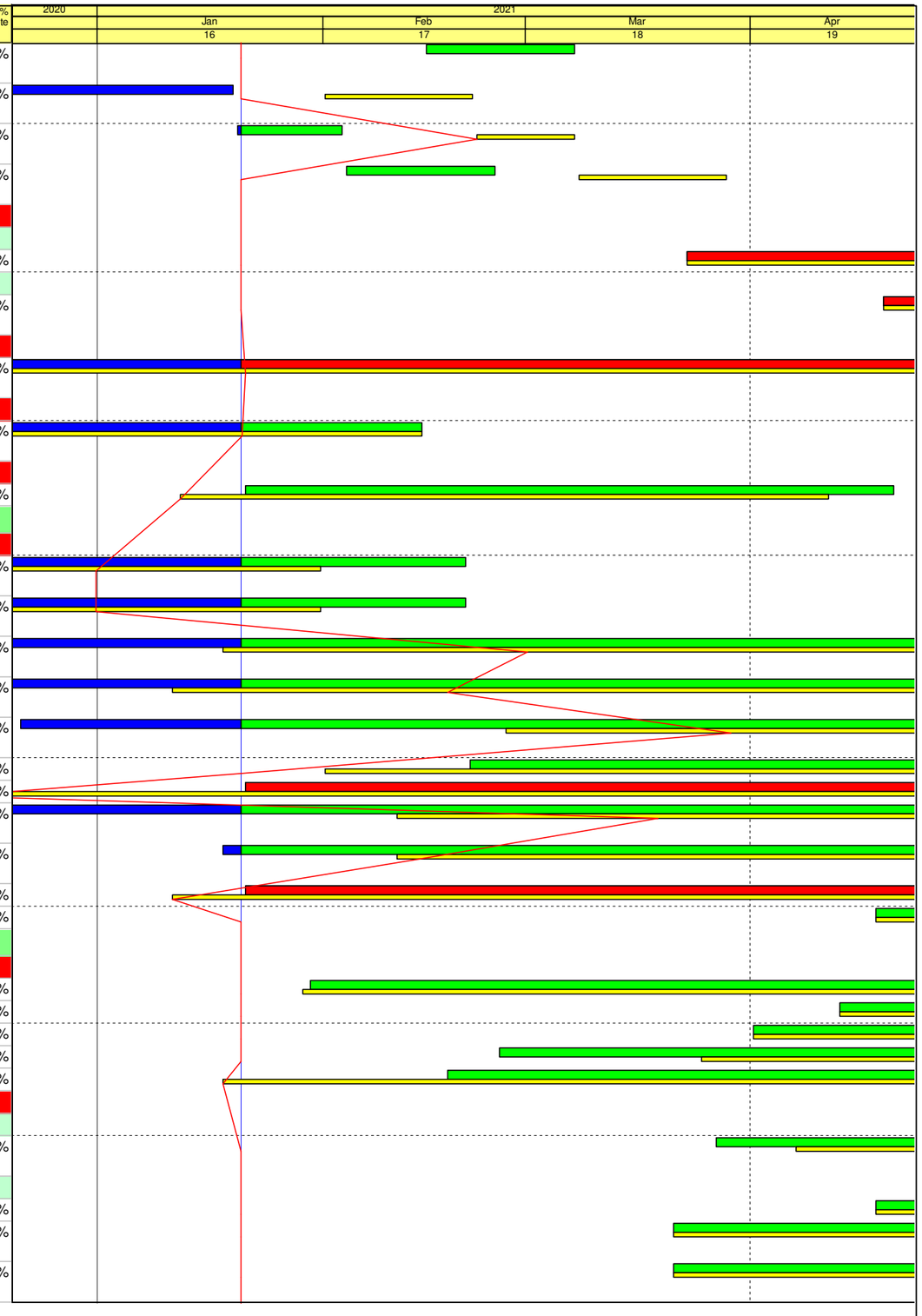
AS201415e	Review & Accept of BS Works Design & Dwgs for Sidestream Treatment Facilities by PM	21	28-Apr-21	18-May-21	15-Feb-21	07-Mar-21	467	0%
AS201430e	Review & Comment on FS Works Design & Dwgs for Sidestream Treatment Facilities by PM	0	01-Feb-21	21-Feb-21	11-Dec-20 A	19-Jan-21 A		100%
AS201440e	Revise & Re-submit FS Works Design & Dwgs for Sidestream Treatment Facilities	14	22-Feb-21	07-Mar-21	20-Jan-21 A	03-Feb-21	73	0%
AS201450e	Review & Accept of FS Works Design & Dwgs for Sidestream Treatment Facilities by PM	21	08-Mar-21	28-Mar-21	04-Feb-21	24-Feb-21	73	0%
Major Plant & Materials Procurement		387	23-Mar-21	13-Apr-22	23-Mar-21	13-Apr-22	0	
Civil & Structure		45	23-Mar-21	06-May-21	23-Mar-21	06-May-21	0	
AS153130e	Procurement, Manufacture & Delivery of Piling	45	23-Mar-21	06-May-21	23-Mar-21	06-May-21	0	0%
E&M Process		360	19-Apr-21	13-Apr-22	19-Apr-21	13-Apr-22	0	
AS153100	Procurement, Manufacture & Delivery of Deammonification Sidestream Treatment Facilities	360	19-Apr-21	13-Apr-22	19-Apr-21	13-Apr-22	0	0%
Ground Settlement, Tilting & Utility Monitoring		1144	12-Dec-20	09-Mar-24	12-Dec-20 A	09-Mar-24	0	
AS153200f	Ground Settlement, Tilting & Utility Monitoring	1144	12-Dec-20	09-Mar-24	12-Dec-20 A	09-Mar-24	0	3.38%
Civil Works Construction		25	12-Dec-20	14-Feb-21	12-Dec-20 A	14-Feb-21	67	
AS161120	Ground Investigation	25	12-Dec-20	14-Feb-21	12-Dec-20 A	14-Feb-21	67	61.54%
Statutory Submission / Inspection (FSD)		90	12-Jan-21	11-Apr-21	21-Jan-21	20-Apr-21	32	
AS201440	Prepare & Submit GBP for FSD approval	90	12-Jan-21	11-Apr-21	21-Jan-21*	20-Apr-21	32	0%
Section 4 - Complete Construction & T&C for UV System No.1 & EP S		271	18-Apr-20	07-Nov-21	18-Apr-20 A	18-Oct-21	100	
Major Plant & Materials Fabrication & Delivery		271	18-Apr-20	07-Nov-21	18-Apr-20 A	18-Oct-21	100	
AS103160	Procurement & PO for FRP Cover (S11)	31	18-Apr-20	31-Jan-21	18-Apr-20 A	20-Feb-21	100	89.24%
AS103320	Procurement & PO for Elec. Materials	31	18-Jul-20	31-Jan-21	18-Jul-20 A	20-Feb-21	168	84.34%
AS104100	Fabrication of UV Disinfection System (S10)	138	18-Jan-21	16-Jul-21	10-Dec-20 A	07-Jun-21	53	23.33%
AS104120	Fabrication & Delivery of Lift-up Pumps (S11)	142	11-Jan-21	09-Jul-21	14-Dec-20 A	11-Jun-21	42	21.11%
AS104140	Fabrication & Delivery of Transfer Pumps (S13)	149	26-Feb-21	24-Aug-21	21-Dec-20 A	18-Jun-21	81	17.22%
AS104160	Fabrication & Delivery of FRP Cover (S11)	240	01-Feb-21	30-Jul-21	21-Feb-21*	18-Oct-21	100	0%
AS104180	Fabrication & Delivery of EOT Cranes (2T & 5T) (S19)	120	12-Dec-20	10-May-21	21-Jan-21*	20-May-21	4	0%
AS104200	Fabrication & Delivery of Stoplogs (S21)	234	11-Feb-21	07-Nov-21	16-Dec-20 A	11-Sep-21	91	13.33%
AS104220	Fabrication & Delivery of Penstocks (S21)	267	11-Feb-21	07-Nov-21	18-Jan-21 A	14-Oct-21	58	1.11%
AS104300	Fabrication & Delivery of Pipeworks & Associated Valves	180	11-Jan-21	09-Jul-21	21-Jan-21*	19-Jul-21	4	0%
AS104400	Fabrication & Delivery of FS System (S20)	180	18-Apr-21	14-Oct-21	18-Apr-21*	14-Oct-21	10	0%
Section 5 - Complete all remaining Works (incl. T&C)		386	18-Jan-21	19-Mar-22	30-Jan-21	19-Feb-22	704	
Fabrication, FAT & Delivery of Major Plant & Materials		386	18-Jan-21	19-Mar-22	30-Jan-21	19-Feb-22	383	
AS023290	Procurement & PO for Pipeworks & Associated Valves	120	29-Jan-21	28-May-21	30-Jan-21	29-May-21	10	0%
AS023620	Procurement & PO for Elec. Materials	90	13-Apr-21	11-Jul-21	13-Apr-21	11-Jul-21	12	0%
AS501880	Fabrication & Delivery of Process Water Pump (S21)	300	01-Apr-21	25-Jan-22	01-Apr-21	25-Jan-22	300	0%
AS501920	Fabrication & Delivery of THP Cooling Pump (S21)	360	25-Mar-21	19-Mar-22	25-Feb-21	19-Feb-22	383	0%
AS501990b	Fabrication & Delivery of Genset	360	18-Jan-21	12-Jan-22	18-Feb-21	12-Feb-22	252	0%
Statutory Submission / Inspection		306	21-Mar-21	31-Jan-22	21-Mar-21	20-Jan-22	734	
EPD Submission / Inspection		300	07-Apr-21	31-Jan-22	27-Mar-21	20-Jan-22	734	
AS509520a	EPD Submission & Approval for Air Pollution Control - CHP, CAPC, Flare	300	07-Apr-21	31-Jan-22	27-Mar-21	20-Jan-22	734	0%
EMSD Submission / Inspection		180	21-Mar-21	16-Sep-21	21-Mar-21	16-Sep-21	598	
AS509370b	BEEO Stage one: Submit EE1 & EE-SU to EMSD	60	18-Apr-21	16-Jun-21	18-Apr-21	16-Jun-21	250	0%
AS509380b	Application & Approval of the Zone Classification of Hazardous Area - including Fire Risk Assessment Report	180	21-Mar-21	16-Sep-21	21-Mar-21	16-Sep-21	598	0%
AS509400a	Application for Construction Approval of Notifiable Gas Installation (Form 104)	180	21-Mar-21	16-Sep-21	21-Mar-21	16-Sep-21	598	0%



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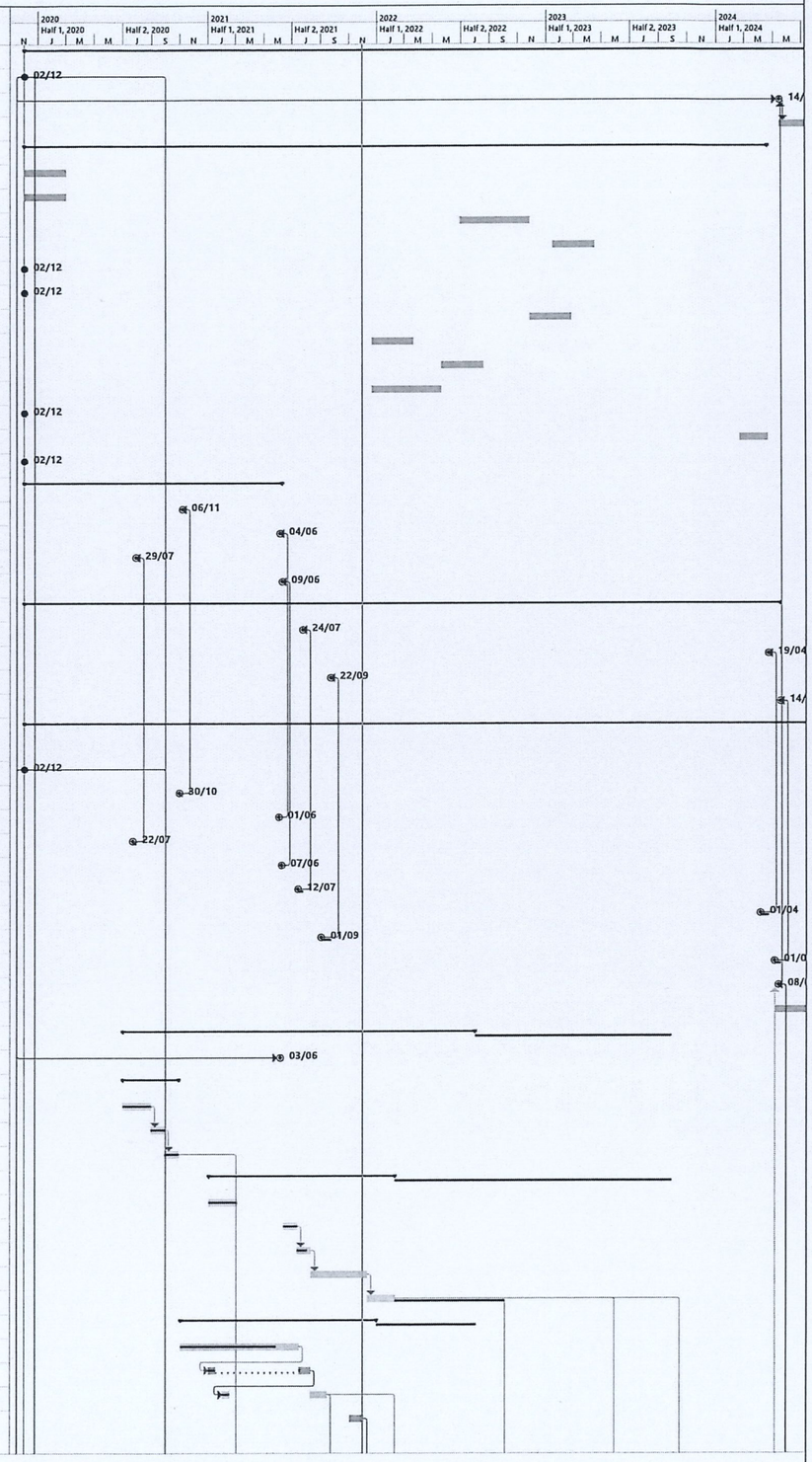
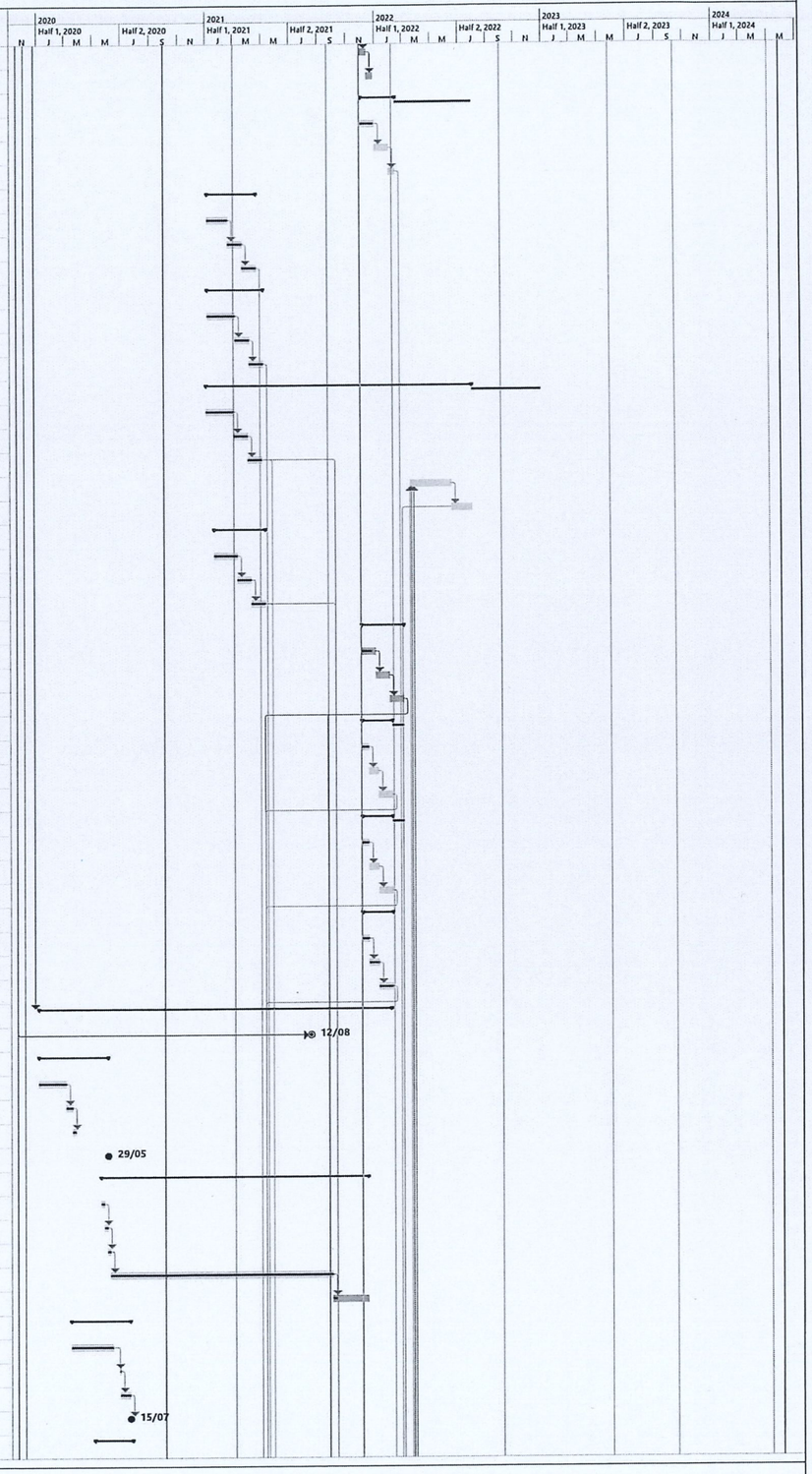
ID	ID	WBS	Task Name	Duration	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1	1	1	**DE/2018/04 - Contract Master Programme**	1990 days	Mon 02/12/19	Tue 13/05/25	Mon 02/12/19	Tue 13/05/25	Mon 02/12/19	Tue 13/05/25	0 days			
2	2	1.1	Starting Date	0 days	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	0 days		3SS+1625 edays,633,206	
3	3	1.2	Completion Date	0 days	Tue 14/05/24	Tue 14/05/24	Tue 14/05/24	Tue 14/05/24	Tue 14/05/24	Tue 14/05/24	0 days	2SS+1625 ed	4	
4	4	1.3	Defect Dates with respect to Completion Date	365 days	Tue 14/05/24	Tue 13/05/25	Tue 14/05/24	Tue 13/05/25	Tue 14/05/24	Tue 13/05/25	0 days	3		
5	5	2	**Access Dates**	1599 days	Mon 02/12/19	Thu 18/04/24	Mon 02/12/19	Thu 18/04/24	Mon 02/12/19	Thu 18/04/24	0 days			
6	6	2.1	Access Date for Works Area WA1-C	90 days	Mon 02/12/19	Sat 29/02/20	Mon 02/12/19	Sat 29/02/20	Mon 02/12/19	Sat 29/02/20	0 days			
7	7	2.2	Access Date for Works Area WA2-C	90 days	Mon 02/12/19	Sat 29/02/20	Mon 02/12/19	Sat 29/02/20	Mon 02/12/19	Sat 29/02/20	0 days			
8	8	2.3	Access Date for Portion B-2, Inlet Works No. 1	150 edays	Tue 28/06/22	Fri 25/11/22	Tue 28/06/22	Fri 25/11/22	Tue 28/06/22	Fri 25/11/22	0 edays			
9	9	2.4	Access Date for Portion B-3, PST No. 1~4	90 edays	Sat 14/01/23	Fri 14/04/23	Sat 14/01/23	Fri 14/04/23	Sat 14/01/23	Fri 14/04/23	0 edays			
10	10	2.5	Access Date for Portion B-3A, Existing PST No. 4 and No. 6	0 days	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	0 days			
11	11	2.6	Access Date for Portion B-3B, Temporary Filtrate Lifting Well and Eq. Tank	0 days	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	0 days			
12	12	2.7	Access Date for Portion B-4, BR 2A & 2B	90 edays	Fri 25/11/22	Thu 23/02/23	Fri 25/11/22	Thu 23/02/23	Fri 25/11/22	Thu 23/02/23	0 edays			
13	13	2.8	Access Date for Portion B-5A, MFB No. 2 below 1st floor level	90 edays	Mon 20/12/21	Sun 20/03/22	Mon 20/12/21	Sun 20/03/22	Mon 20/12/21	Sun 20/03/22	0 edays			
14	14	2.9	Access Date for Portion B-5B, MFB No. 2 remaining portion	90 edays	Thu 19/05/22	Wed 17/08/22	Thu 19/05/22	Wed 17/08/22	Thu 19/05/22	Wed 17/08/22	0 edays			
15	15	2.10	Access Date for Portion B-7 & 7B, Chemical Dosing, Concrete Plinth for DOs,	150 edays	Mon 20/12/21	Thu 19/05/22	Mon 20/12/21	Thu 19/05/22	Mon 20/12/21	Thu 19/05/22	0 edays			
16	16	2.11	Access Date for Portion B-7A & 7B, area for modification of existing emerger	0 edays	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	0 edays			
17	17	2.12	Access Date for Portion B-9B, underground pipework	60 edays	Sun 18/02/24	Thu 18/04/24	Sun 18/02/24	Thu 18/04/24	Sun 18/02/24	Thu 18/04/24	0 edays			
18	18	2.13	Access Date for B-10, existing sludge thickening building	0 edays	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	0 edays			
19	19	3	**Key Dates**	555 days	Mon 02/12/19	Wed 09/06/21	Mon 02/12/19	Wed 09/06/21	Mon 02/12/19	Wed 09/06/21	0 days			
20	20	3.1	KD1A - Submission of civil and dimensional requirement drawings, electrical	340 edays	Mon 02/12/19	Fri 06/11/20	Mon 02/12/19	Fri 06/11/20	Mon 02/12/19	Fri 06/11/20	0 edays	31FF		
21	21	3.2	KD1B - Submission of remaining civil and dimensional requirement drawings	550 edays	Mon 02/12/19	Fri 04/06/21	Mon 02/12/19	Fri 04/06/21	Mon 02/12/19	Fri 04/06/21	0 edays	32FF		
22	22	3.3	KD3A - Completion of E&M Installation works of existing power house in Por	240 edays	Mon 02/12/19	Wed 29/07/20	Mon 02/12/19	Wed 29/07/20	Mon 02/12/19	Wed 29/07/20	0 edays	33FF		
23	23	3.4	KD3B - Completion of all work for reprovision of the existing Primary Sedime	555 edays	Mon 02/12/19	Wed 09/06/21	Mon 02/12/19	Wed 09/06/21	Mon 02/12/19	Wed 09/06/21	0 edays	34FF		
24	24	4	**Sectional Completion Dates**	1625 days	Mon 02/12/19	Tue 14/05/24	Mon 02/12/19	Tue 14/05/24	Mon 02/12/19	Tue 14/05/24	0 days			
25	25	4.1	Section 1 - Completion of the design of E&M Works for all works as defined	600 edays	Mon 02/12/19	Sat 24/07/21	Mon 02/12/19	Sat 24/07/21	Mon 02/12/19	Sat 24/07/21	0 edays	35FF		
26	26	4.2	Section 2 - Completion of all works for Inlet Works, PST No. 1~4, BR No. 2A &	1600 edays	Mon 02/12/19	Fri 19/04/24	Mon 02/12/19	Fri 19/04/24	Mon 02/12/19	Fri 19/04/24	0 edays	36FF		
27	27	4.3	Section 3 - Completion of all works for retrofitting of the existing PST...etc (6	660 edays	Mon 02/12/19	Wed 22/09/21	Mon 02/12/19	Wed 22/09/21	Mon 02/12/19	Wed 22/09/21	0 edays	37FF		
28	28	4.4	Section 4 - Completion of Work for remainder of the works (1625 days after	1625 edays	Mon 02/12/19	Tue 14/05/24	Mon 02/12/19	Tue 14/05/24	Mon 02/12/19	Tue 14/05/24	0 edays	38FF		
29	29	5	**DE/2018/04 - the Contractor's Programme (w/ Defects Date of Planned Completion Date)**	1977 days	Mon 02/12/19	Wed 30/04/25	Mon 02/12/19	Wed 30/04/25	Mon 02/12/19	Wed 30/04/25	0 days			
30	30	5.1	Starting Date	0 days	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	0 days		633,206SS+30 edays,425	
31	31	5.2	Planned Key Date Completion Date - KD1A	0 days	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 06/11/20	Fri 06/11/20	7 days		20FF	
32	32	5.3	Planned Key Date Completion Date - KD1B	0 days	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Fri 04/06/21	Fri 04/06/21	3 days		21FF	
33	33	5.4	Planned Key Date Completion Date - KD3A	0 days	Wed 22/07/20	Wed 22/07/20	Wed 22/07/20	Wed 22/07/20	Wed 29/07/20	Wed 29/07/20	7 days		22FF	
34	34	5.5	Planned Key Date Completion Date - KD3B	0 days	Mon 07/06/21	Mon 07/06/21	Mon 07/06/21	Mon 07/06/21	Wed 09/06/21	Wed 09/06/21	2 days		23FF	
35	35	5.6	Planned Sectional Completion Date - Section 1	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Sat 24/07/21	Sat 24/07/21	11 days		25FF	
36	36	5.7	Planned Sectional Completion Date - Section 2	0 days	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Fri 19/04/24	Fri 19/04/24	18 days		26FF	
37	37	5.8	Planned Sectional Completion Date - Section 3	0 days	Wed 01/09/21	Wed 01/09/21	Wed 01/09/21	Wed 01/09/21	Wed 22/09/21	Wed 22/09/21	21 days		27FF	
38	38	5.9	Planned Sectional Completion Date - Section 4	0 days	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	Tue 14/05/24	Tue 14/05/24	13 days		28FF	
39	39	5.10	Planned Completion Date	0 days	Wed 08/05/24	Wed 08/05/24	Wed 08/05/24	Wed 08/05/24	Tue 14/05/24	Tue 14/05/24	5 days	1291,1292,13		
40	40	5.11	Defect Dates with respect to planned completion date	365 days	Wed 01/05/24	Wed 30/04/25	Wed 01/05/24	Wed 30/04/25	Wed 01/05/24	Wed 30/04/25	0 days			
41	41	5.12	**Part A: Procurement and Delivery of Major Plant and Materials**	758 days	Wed 01/07/20	Thu 28/07/22	Wed 01/07/20	Thu 28/07/22	Wed 01/07/20	Sat 23/09/23	422 days			
42	42	5.12.1	Planned Completion Date for Procurement of major plant and materials	0 days	Thu 03/06/21	Thu 03/06/21	Thu 03/06/21	Thu 03/06/21	Thu 03/06/21	Thu 03/06/21	0 days	30SS+550 d		
43	43	5.12.2	**General - stoplogs and penstocks, C11, EQT013**	120 days	Wed 01/07/20	Wed 28/10/20	Wed 01/07/20	Wed 28/10/20	Wed 01/07/20	Wed 28/10/20	0 days			
44	44	5.12.2.1	Submission for acceptance of purchasing package	60 days	Wed 01/07/20	Sat 29/08/20	Wed 01/07/20	Sat 29/08/20	Wed 01/07/20	Sat 29/08/20	0 days		45	
45	45	5.12.2.2	Invitation of quotations for purchasing package	30 days	Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/20	0 days	44	46	
46	46	5.12.2.3	Acceptance of conforming quotation (Completed)	30 days	Tue 29/09/20	Wed 28/10/20	Tue 29/09/20	Wed 28/10/20	Tue 29/09/20	Wed 28/10/20	0 days	45	257	
47	47	5.12.3	**General - Instrumentations except use at BR, C11, EQT035-1**	401 days	Sat 02/01/21	Sun 06/02/22	Sat 02/01/21	Sun 06/02/22	Sat 02/01/21	Sat 23/09/23	594 days			
48	48	5.12.3.1	Submission for acceptance of purchasing package	60 days	Sat 02/01/21	Tue 02/03/21	Sat 02/01/21	Tue 02/03/21	Sat 02/01/21	Tue 02/03/21	0 days			
49	49	5.12.3.2	Invitation of quotations for purchasing package (Rev. 10)	30 days	Fri 11/06/21	Sat 10/07/21	Fri 11/06/21	Sat 10/07/21	Fri 11/06/21	Sat 10/07/21	0 days		50	
50	50	5.12.3.3	Acceptance of conforming quotation (Rev. 10)	30 days	Sun 11/07/21	Mon 09/08/21	Sun 11/07/21	Mon 09/08/21	Sun 11/07/21	Sun 26/03/23	0 days	49	51	
51	51	5.12.3.4	Manufacturing and Factory Acceptance Test of Plant (Rev. 10)	121 days	Tue 10/08/21	Wed 08/12/21	Tue 10/08/21	Wed 08/12/21	Mon 27/03/23	Tue 25/07/23	0 days	50	52	
52	52	5.12.3.5	Shipping and Delivery of Plant (Rev. 10)	60 days	Thu 09/12/21	Sun 06/02/22	Thu 09/12/21	Sun 06/02/22	Wed 26/07/23	Sat 23/09/23	237 days	51	339,470,752	
53	53	5.12.4	**General - pipework and valves, C11, ref. EQT036 (Rev. 11)**	422 days	Mon 02/11/20	Tue 28/12/21	Mon 02/11/20	Tue 28/12/21	Mon 02/11/20	Sat 30/07/22	214 days			
54	54	5.12.4.1	Submission for acceptance of purchasing package (Rev. 11)	255 days	Mon 02/11/20	Wed 14/07/21	Mon 02/11/20	Wed 14/07/21	Mon 02/11/20	Sat 17/07/21	0 days		55	
55	55	5.12.4.2	Invitation of quotations for purchasing package (Rev. 11)	40 days	Fri 01/01/21	Sun 08/08/21	Fri 01/01/21	Sun 08/08/21	Fri 01/01/21	Sun 08/08/21	0 days	54	56	
56	56	5.12.4.3	Acceptance of conforming quotation (Rev. 11)	50 days	Sun 31/01/21	Sun 12/09/21	Sun 31/01/21	Sun 12/09/21	Sun 31/01/21	Sat 30/07/22	0 days	55	283,289,434,563,686	
57	57	5.12.4.4	Submission for acceptance of purchasing package for remaining pipework and valves (Rev. 13)	30 days	Mon 01/11/21	Tue 30/11/21	Mon 01/11/21	Tue 30/11/21	Mon 01/11/21	Tue 30/11/21	0 days		58	



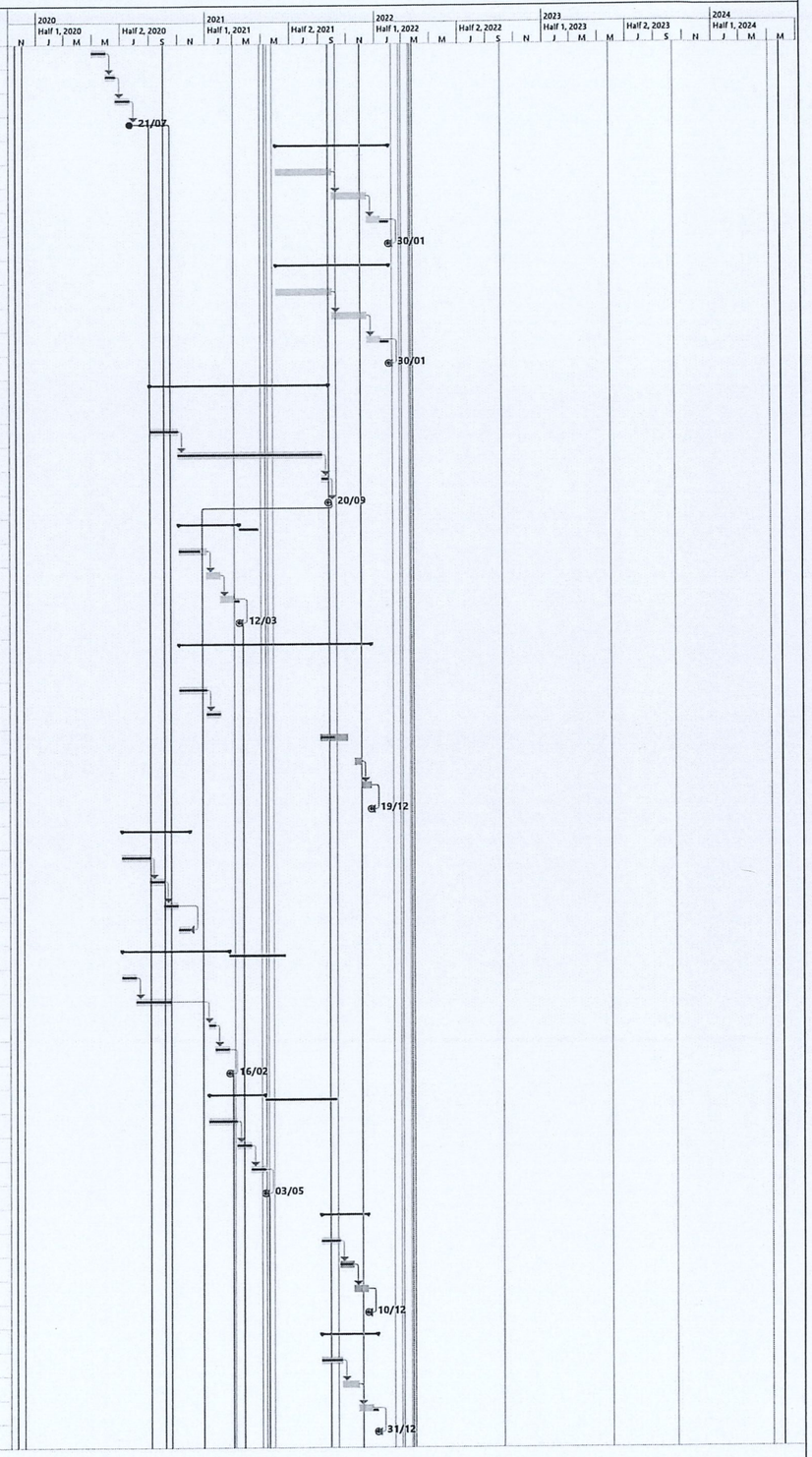
Bestwise
Project: DE/2018/04
Date: 30/11/21

Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

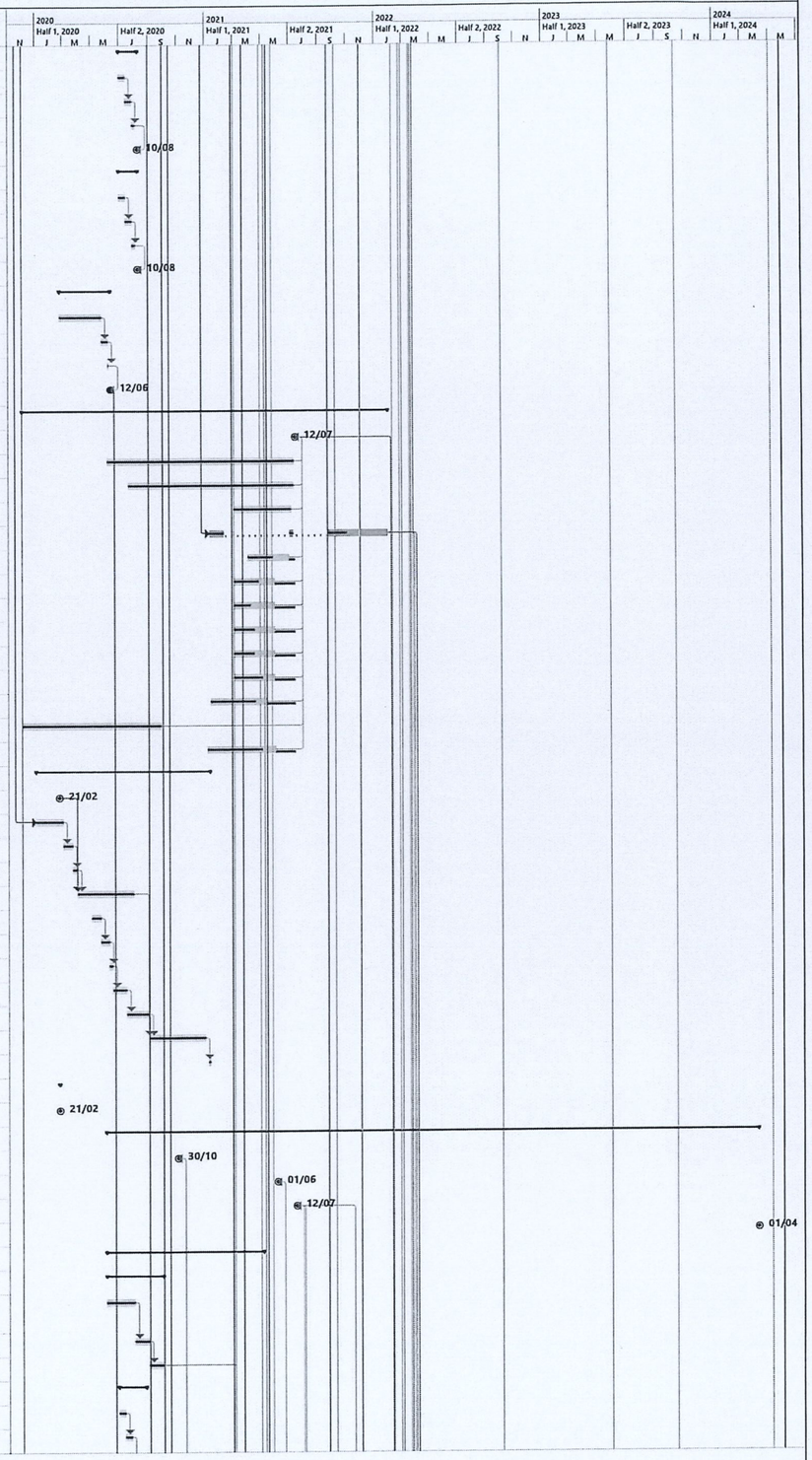
ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
58	58	5.12.4.5	Invitation of quotations for purchasing package (Rev. 13)	14 days	Wed 01/12/21	Tue 14/12/21	Wed 01/12/21	Tue 14/12/21	Wed 01/12/21	Tue 14/12/21	0 days	57	59	
59	59	5.12.4.6	Acceptance of conforming quotation (Rev. 13)	14 days	Wed 15/12/21	Tue 28/12/21	Wed 15/12/21	Tue 28/12/21	Wed 15/12/21	Tue 28/12/21	0 days	58		
60	60	5.12.5	**General - Electric actuators for valves, C11, ref. EQT072 (Rev. 11)**	74 days	Thu 02/12/21	Sun 13/02/22	Thu 02/12/21	Sun 13/02/22	Thu 02/12/21	Sat 30/07/22	167 days			
61	61	5.12.5.1	Submission for acceptance of purchasing package (Rev. 11)	30 days	Thu 02/12/21	Fri 31/12/21	Thu 02/12/21	Fri 31/12/21	Thu 02/12/21	Thu 16/06/22	0 days		62	
62	62	5.12.5.2	Invitation of quotations for purchasing package (Rev. 11)	30 days	Sat 01/01/22	Sun 30/01/22	Sat 01/01/22	Sun 30/01/22	Fri 17/06/22	Sat 16/07/22	0 days	61	63	
63	63	5.12.5.3	Acceptance of conforming quotation (Rev. 11)	14 days	Mon 31/01/22	Sun 13/02/22	Mon 31/01/22	Sun 13/02/22	Sun 17/07/22	Sat 30/07/22	0 days	62	289,434,563,686	
64	64	5.12.6	**General - HV Switchboards, C9, ref. 04SC012 (Rev. 14)**	105 days	Mon 04/01/21	Sun 18/04/21	Mon 04/01/21	Sun 18/04/21	Mon 04/01/21	Sun 18/04/21	0 days			
65	65	5.12.6.1	Submission for acceptance of purchasing package	45 days	Mon 04/01/21	Wed 17/02/21	Mon 04/01/21	Wed 17/02/21	Mon 04/01/21	Wed 17/02/21	0 days		66	
66	66	5.12.6.2	Invitation of quotations for purchasing package	30 days	Thu 18/02/21	Fri 19/03/21	Thu 18/02/21	Fri 19/03/21	Thu 18/02/21	Fri 19/03/21	0 days	65	67	
67	67	5.12.6.3	Acceptance of conforming quotation (Rev. 11, Completed)	30 days	Sat 20/03/21	Sun 18/04/21	Sat 20/03/21	Sun 18/04/21	Sat 20/03/21	Sun 18/04/21	0 days	66	661,261	
68	68	5.12.7	**General - LV Switchboards, C9, ref. 04SC013 (Rev. 14)**	120 days	Mon 04/01/21	Mon 03/05/21	Mon 04/01/21	Mon 03/05/21	Mon 04/01/21	Mon 03/05/21	0 days			
69	69	5.12.7.1	Submission for acceptance of purchasing package	60 days	Mon 04/01/21	Thu 04/03/21	Mon 04/01/21	Thu 04/03/21	Mon 04/01/21	Thu 04/03/21	0 days		70	
70	70	5.12.7.2	Invitation of quotations for purchasing package	30 days	Fri 05/03/21	Sat 03/04/21	Fri 05/03/21	Sat 03/04/21	Fri 05/03/21	Sat 03/04/21	0 days	69	71	
71	71	5.12.7.3	Acceptance of conforming quotation (Rev. 11, Completed)	30 days	Sun 04/04/21	Mon 03/05/21	Sun 04/04/21	Mon 03/05/21	Sun 04/04/21	Mon 03/05/21	0 days	70	260,536,407,660	
72	72	5.12.8	**General - VSDs & Passive Type Harmonic Filters, C11, ref. EQT034 (Rev. !**	574 days	Fri 01/01/21	Thu 28/07/22	Fri 01/01/21	Thu 28/07/22	Fri 01/01/21	Tue 27/12/22	152 days			
73	73	5.12.8.1	Submission for acceptance of purchasing package	60 days	Fri 01/01/21	Mon 01/03/21	Fri 01/01/21	Mon 01/03/21	Fri 01/01/21	Mon 01/03/21	0 days		74	
74	74	5.12.8.2	Invitation of quotations for purchasing package	30 days	Tue 02/03/21	Wed 31/03/21	Tue 02/03/21	Wed 31/03/21	Tue 02/03/21	Wed 31/03/21	0 days	73	75	
75	75	5.12.8.3	Acceptance of conforming quotation (Rev. 11, Completed)	30 days	Thu 01/04/21	Fri 30/04/21	Thu 01/04/21	Fri 30/04/21	Thu 01/04/21	Fri 30/04/21	0 days	74	258,405,534,657	
76	76	5.12.8.4	Manufacturing and Factory Acceptance Test of Plant	90 days	Wed 16/03/22	Mon 13/06/22	Wed 16/03/22	Mon 13/06/22	Mon 15/08/22	Sat 12/11/22	0 days	258,405,53477		
77	77	5.12.8.5	Shipping and Delivery of Plant to LVSB Sub-Contractor	45 days	Tue 14/06/22	Thu 28/07/22	Tue 14/06/22	Thu 28/07/22	Sun 13/11/22	Tue 27/12/22	0 days	76	296SS-90 edays	
78	78	5.12.9	**General - 11kV/380V Stepdown Power Transformers, C11, EQT032 (Rev.**	110 days	Mon 18/01/21	Fri 07/05/21	Mon 18/01/21	Fri 07/05/21	Mon 18/01/21	Fri 07/05/21	0 days			
79	79	5.12.9.1	Submission for acceptance of purchasing package	50 days	Mon 18/01/21	Mon 08/03/21	Mon 18/01/21	Mon 08/03/21	Mon 18/01/21	Mon 08/03/21	0 days		80	
80	80	5.12.9.2	Invitation of quotations for purchasing package	30 days	Tue 09/03/21	Wed 07/04/21	Tue 09/03/21	Wed 07/04/21	Tue 09/03/21	Wed 07/04/21	0 days	79	81	
81	81	5.12.9.3	Acceptance of conforming quotation (Rev. 11, Completed)	30 days	Thu 08/04/21	Fri 07/05/21	Thu 08/04/21	Fri 07/05/21	Thu 08/04/21	Fri 07/05/21	0 days	80	258,657	
82	82	5.12.10	**General - UPS, C11, EQT039A (Rev. 14)**	90 days	Wed 01/12/21	Mon 28/02/22	Wed 01/12/21	Mon 28/02/22	Wed 01/12/21	Mon 28/02/22	0 days			
83	83	5.12.10.1	Submission for acceptance of purchasing package (Rev. 13)	30 days	Wed 01/12/21	Thu 30/12/21	Wed 01/12/21	Thu 30/12/21	Wed 01/12/21	Thu 30/12/21	0 days		84	
84	84	5.12.10.2	Invitation of quotations for purchasing package (Rev. 13)	30 days	Fri 31/12/21	Sat 29/01/22	Fri 31/12/21	Sat 29/01/22	Fri 31/12/21	Sat 29/01/22	0 days	83	85	
85	85	5.12.10.3	Acceptance of conforming quotation (Rev. 13)	30 days	Sun 30/01/22	Mon 28/02/22	Sun 30/01/22	Mon 28/02/22	Sun 30/01/22	Mon 28/02/22	0 days	84	258,405,534,657	
86	86	5.12.11	**General - HV Cables, C11, EQT041 (Rev. 13)**	65 days	Wed 01/12/21	Thu 03/02/22	Wed 01/12/21	Thu 03/02/22	Wed 01/12/21	Mon 28/02/22	25 days			
87	87	5.12.11.1	Submission for acceptance of purchasing package	14 days	Wed 01/12/21	Tue 14/12/21	Wed 01/12/21	Tue 14/12/21	Wed 01/12/21	Tue 14/12/21	0 days		88	
88	88	5.12.11.2	Invitation of quotations for purchasing package	21 days	Wed 15/12/21	Tue 04/01/22	Wed 15/12/21	Tue 04/01/22	Sun 09/01/22	Sat 29/01/22	0 days	87	89	
89	89	5.12.11.3	Acceptance of conforming quotation	30 days	Wed 05/01/22	Thu 03/02/22	Wed 05/01/22	Thu 03/02/22	Sun 30/01/22	Mon 28/02/22	0 days	88	258,657	
90	90	5.12.12	**General - LV Cables, C11, EQT042 (Rev. 13)**	65 days	Wed 01/12/21	Thu 03/02/22	Wed 01/12/21	Thu 03/02/22	Wed 01/12/21	Mon 28/02/22	25 days			
91	91	5.12.12.1	Submission for acceptance of purchasing package	14 days	Wed 01/12/21	Tue 14/12/21	Wed 01/12/21	Tue 14/12/21	Wed 01/12/21	Tue 14/12/21	0 days		92	
92	92	5.12.12.2	Invitation of quotations for purchasing package	21 days	Wed 15/12/21	Tue 04/01/22	Wed 15/12/21	Tue 04/01/22	Sun 09/01/22	Sat 29/01/22	0 days	91	93	
93	93	5.12.12.3	Acceptance of conforming quotation	30 days	Wed 05/01/22	Thu 03/02/22	Wed 05/01/22	Thu 03/02/22	Sun 30/01/22	Mon 28/02/22	0 days	92	258,405,534,657	
94	94	5.12.13	**General - Gas Detection System, C11, EQT051 (Rev. 16)**	65 days	Wed 01/12/21	Thu 03/02/22	Wed 01/12/21	Thu 03/02/22	Wed 01/12/21	Thu 03/02/22	0 days			
95	95	5.12.13.1	Submission for acceptance of purchasing package	14 days	Wed 01/12/21	Tue 14/12/21	Wed 01/12/21	Tue 14/12/21	Wed 01/12/21	Tue 14/12/21	0 days		96	
96	96	5.12.13.2	Invitation of quotations for purchasing package	21 days	Wed 15/12/21	Tue 04/01/22	Wed 15/12/21	Tue 04/01/22	Wed 15/12/21	Tue 04/01/22	0 days	95	97	
97	97	5.12.13.3	Acceptance of conforming quotation (Completed)	30 days	Wed 05/01/22	Thu 03/02/22	Wed 05/01/22	Thu 03/02/22	Wed 05/01/22	Thu 03/02/22	0 days	96	258,405,534,657	
98	98	5.13	**Part B: Subletting of major sub-contract works**	761 days	Wed 01/01/20	Sun 30/01/22	Wed 01/01/20	Sun 30/01/22	Wed 01/01/20	Sun 30/01/22	0 days	2,30		
99	99	5.13.1	Planned Completion Date for major sub-contract works	0 days	Thu 12/08/21	Thu 12/08/21	Thu 12/08/21	Thu 12/08/21	Thu 12/08/21	Thu 12/08/21	0 days	2SS+620 da		
100	100	5.13.2	**General - Independent BEAM Plus Consultant (04SC007)**	150 days	Wed 01/01/20	Fri 29/05/20	Wed 01/01/20	Fri 29/05/20	Wed 01/01/20	Fri 29/05/20	0 days			
101	101	5.13.2.1	Submission for acceptance of proposed Independent BEAM Plus Consu	60 edays	Wed 01/01/20	Sun 01/03/20	Wed 01/01/20	Sun 01/03/20	Wed 01/01/20	Sun 01/03/20	0 edays		102	
102	102	5.13.2.2	Acceptance of proposed Independent BEAM Plus Consultant	14 edays	Sun 01/03/20	Sun 15/03/20	Sun 01/03/20	Sun 15/03/20	Sun 01/03/20	Sun 15/03/20	0 edays	101	103	
103	103	5.13.2.3	Engagement with an Independent BEAM Plus Consultant	7 days	Sun 15/03/20	Sat 21/03/20	Sun 15/03/20	Sat 21/03/20	Sun 15/03/20	Sat 21/03/20	0 days	102		
104	104	5.13.2.4	Actual Date for engagement with an Independent BEAM Plus Consultar	0 days	Fri 29/05/20	Fri 29/05/20	Fri 29/05/20	Fri 29/05/20	Fri 29/05/20	Fri 29/05/20	0 days			
105	105	5.13.3	**General - Conduction of Pump sump physical model test 04SC015**	575 days	Fri 15/05/20	Fri 10/12/21	Fri 15/05/20	Fri 10/12/21	Fri 15/05/20	Fri 10/12/21	0 days			
106	106	5.13.3.1	Submission for acceptance of proposed hydraulic laboratory to conduc	7 edays	Fri 15/05/20	Fri 22/05/20	Fri 15/05/20	Fri 22/05/20	Fri 15/05/20	Fri 22/05/20	0 edays		107	
107	107	5.13.3.2	Invitation to quotations for provision of service	7 edays	Fri 22/05/20	Fri 29/05/20	Fri 22/05/20	Fri 29/05/20	Fri 22/05/20	Fri 29/05/20	0 edays	106	108	
108	108	5.13.3.3	Acceptance of proposed hydraulic laboratory	6 days	Fri 29/05/20	Wed 03/06/20	Fri 29/05/20	Wed 03/06/20	Fri 29/05/20	Wed 03/06/20	0 days	107	109	
109	109	5.13.3.4	Commencement of detailed proposal and conduction of test (Rev 13)	480 days	Thu 04/06/20	Sun 26/09/21	Thu 04/06/20	Sun 26/09/21	Thu 04/06/20	Sun 26/09/21	0 days	108	110	
110	110	5.13.3.5	Acceptance of hydraulic Report (Rev 16)	75 days	Mon 27/09/21	Fri 10/12/21	Mon 27/09/21	Fri 10/12/21	Mon 27/09/21	Fri 10/12/21	0 days	109		
111	111	5.13.4	**General - Independent Checking Engineer (04SC004)**	127 days	Wed 11/03/20	Wed 15/07/20	Wed 11/03/20	Wed 15/07/20	Wed 11/03/20	Wed 15/07/20	0 days			
112	112	5.13.4.1	Submission for acceptance of proposed Independent Checking Enginee	90 edays	Wed 11/03/20	Tue 09/06/20	Wed 11/03/20	Tue 09/06/20	Wed 11/03/20	Tue 09/06/20	0 edays		113	
113	113	5.13.4.2	Acceptance of proposed Independent Checking Engineer	1 eday	Wed 24/06/20	Thu 25/06/20	Wed 24/06/20	Thu 25/06/20	Wed 24/06/20	Thu 25/06/20	0 edays	112	114	
114	114	5.13.4.3	Engagement with an Independent Checking Engineer	21 days	Thu 25/06/20	Wed 15/07/20	Thu 25/06/20	Wed 15/07/20	Thu 25/06/20	Wed 15/07/20	0 days	113	115	
115	115	5.13.4.4	Actual Date for engagement with an ICE (Completed)	0 days	Wed 15/07/20	Wed 15/07/20	Wed 15/07/20	Wed 15/07/20	Wed 15/07/20	Wed 15/07/20	0 days	114		
116	116	5.13.5	**General - Lifting Appliances (04SC008)**	81 days	Fri 01/05/20	Tue 21/07/20	Fri 01/05/20	Tue 21/07/20	Fri 01/05/20	Tue 21/07/20	0 days			



ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
117	117	5.13.5.1	Submission for acceptance of subcontract works package	30 edays	Fri 01/05/20	Sun 31/05/20	Fri 01/05/20	Sun 31/05/20	Fri 01/05/20	Sun 31/05/20	0 edays		118	
118	118	5.13.5.2	Invitation of tender for subcontract works	21 edays	Sun 31/05/20	Sun 21/06/20	Sun 31/05/20	Sun 21/06/20	Sun 31/05/20	Sun 21/06/20	0 edays	117	119	
119	119	5.13.5.3	Acceptance of conforming tender	30 edays	Sun 21/06/20	Tue 21/07/20	Sun 21/06/20	Tue 21/07/20	Sun 21/06/20	Tue 21/07/20	0 edays	118	120	
120	120	5.13.5.4	Sub-contract work commencement date (Completed)	0 days	Tue 21/07/20	Tue 21/07/20	Tue 21/07/20	Tue 21/07/20	Tue 21/07/20	Tue 21/07/20	0 days	119	262,408,537,662,1054	
121	121	5.13.6	**General - Mechanical Installations**	**244 days**	**Tue 01/06/21**	**Sun 30/01/22**	**Tue 01/06/21**	**Sun 30/01/22**	**Sun 20/06/21**	**Sun 30/01/22**	**0 days**			
122	122	5.13.6.1	Submission for acceptance of subcontract works package	120 days	Tue 01/06/21	Tue 28/09/21	Tue 01/06/21	Tue 28/09/21	Sun 20/06/21	Sun 17/10/21	0 days		123	
123	123	5.13.6.2	Invitation of tender for subcontract works	75 days	Wed 29/09/21	Sun 12/12/21	Wed 29/09/21	Sun 12/12/21	Mon 18/10/21	Fri 31/12/21	0 days	122	124	
124	124	5.13.6.3	Acceptance of conforming tender	30 days	Mon 13/12/21	Tue 11/01/22	Mon 13/12/21	Tue 11/01/22	Sat 01/01/22	Sun 30/01/22	19 days	123	125FF	
125	125	5.13.6.4	Sub-contract work commencement date	1 day	Sun 30/01/22	Sun 30/01/22	Sun 30/01/22	Sun 30/01/22	Sun 30/01/22	Sun 30/01/22	0 days	124FF		
126	126	5.13.7	**General - Electrical Installations**	**244 days**	**Tue 01/06/21**	**Sun 30/01/22**	**Tue 01/06/21**	**Sun 30/01/22**	**Sat 19/06/21**	**Sun 30/01/22**	**0 days**			
127	127	5.13.7.1	Submission for acceptance of subcontract works package	120 edays	Tue 01/06/21	Wed 29/09/21	Tue 01/06/21	Wed 29/09/21	Sat 19/06/21	Sun 17/10/21	0 edays		128	
128	128	5.13.7.2	Invitation of tender for subcontract works	75 edays	Wed 29/09/21	Mon 13/12/21	Wed 29/09/21	Mon 13/12/21	Sun 17/10/21	Fri 31/12/21	0 edays	127	129	
129	129	5.13.7.3	Acceptance of conforming tender	30 edays	Mon 13/12/21	Wed 12/01/22	Mon 13/12/21	Wed 12/01/22	Fri 31/12/21	Sun 30/01/22	18.38 edays	128	130FF	
130	130	5.13.7.4	Sub-contract work commencement date	1 day	Sun 30/01/22	Sun 30/01/22	Sun 30/01/22	Sun 30/01/22	Sun 30/01/22	Sun 30/01/22	0 days	129FF		
131	131	5.13.8	**General - Facility Computerized Systems (SCADA, CMMS, PMS, IDMS) (Rev. 13) 04SC018**	**384 days**	**Tue 01/09/20**	**Mon 20/09/21**	**Tue 01/09/20**	**Mon 20/09/21**	**Tue 01/09/20**	**Mon 20/09/21**	**0 days**			
132	132	5.13.8.1	Submission for acceptance of subcontract works package	60 edays	Tue 01/09/20	Sat 31/10/20	Tue 01/09/20	Sat 31/10/20	Tue 01/09/20	Sat 31/10/20	0 edays		133	
133	133	5.13.8.2	Invitation of tender for subcontract works	310 edays	Sat 31/10/20	Mon 06/09/21	Sat 31/10/20	Mon 06/09/21	Sat 31/10/20	Mon 06/09/21	0 edays	132	134	
134	134	5.13.8.3	Acceptance of conforming tender (Completed)	14 edays	Mon 06/09/21	Mon 20/09/21	Mon 06/09/21	Mon 20/09/21	Mon 06/09/21	Mon 20/09/21	0 edays	133	135	
135	135	5.13.8.4	Sub-contract work commencement date	0 days	Mon 20/09/21	Mon 20/09/21	Mon 20/09/21	Mon 20/09/21	Mon 20/09/21	Mon 20/09/21	0 days	134	194	
136	136	5.13.9	**General - Building Services Installations**	**130 days**	**Mon 02/11/20**	**Fri 12/03/21**	**Mon 02/11/20**	**Fri 12/03/21**	**Mon 02/11/20**	**Wed 21/04/21**	**41 days**			
137	137	5.13.9.1	Submission for acceptance of subcontract works package (Rev. 15)	60 edays	Mon 02/11/20	Fri 01/01/21	Mon 02/11/20	Fri 01/01/21	Mon 02/11/20	Sat 20/02/21	0 edays		138	
138	138	5.13.9.2	Invitation of tender for subcontract works	30 edays	Fri 01/01/21	Sun 31/01/21	Fri 01/01/21	Sun 31/01/21	Sat 20/02/21	Mon 22/03/21	0 edays	137	139	
139	139	5.13.9.3	Acceptance of conforming tender	30 edays	Sun 31/01/21	Tue 02/03/21	Sun 31/01/21	Tue 02/03/21	Mon 22/03/21	Wed 21/04/21	10 edays	138	140FF	
140	140	5.13.9.4	Sub-contract work commencement date	0 days	Fri 12/03/21	Fri 12/03/21	Fri 12/03/21	Fri 12/03/21	Wed 21/04/21	Wed 21/04/21	0 days	139FF	259,406,535,659,806,886	
141	141	5.13.10	**General - Mechanical Ventilation and Air Conditioning Installation (Rev. 13) (04SC020)**	**413 days**	**Mon 02/11/20**	**Sun 19/12/21**	**Mon 02/11/20**	**Sun 19/12/21**	**Mon 02/11/20**	**Sun 19/12/21**	**0 days**			
142	142	5.13.10.1	Submission for acceptance of subcontract works package	60 days	Mon 02/11/20	Thu 31/12/20	Mon 02/11/20	Thu 31/12/20	Mon 02/11/20	Thu 31/12/20	0 days		143	
143	143	5.13.10.2	Invitation of tender for subcontract works	30 edays	Thu 31/12/20	Sat 30/01/21	Thu 31/12/20	Sat 30/01/21	Thu 31/12/20	Sat 30/01/21	0 edays	142		
144	144	5.13.10.3	Submission for acceptance of revised subcontract works package (Rev.	60 days	Wed 01/09/21	Sat 30/10/21	Wed 01/09/21	Sat 30/10/21	Wed 01/09/21	Sat 30/10/21	0 days			
145	145	5.13.10.4	Invitation of tender for subcontract works (Rev. 15)	14 days	Mon 15/11/21	Sun 28/11/21	Mon 15/11/21	Sun 28/11/21	Mon 15/11/21	Sun 28/11/21	0 days		146	
146	146	5.13.10.5	Acceptance of conforming tender (Rev. 13)	21 days	Mon 29/11/21	Sun 19/12/21	Mon 29/11/21	Sun 19/12/21	Mon 29/11/21	Sun 19/12/21	0 days	145	147FF	
147	147	5.13.10.6	Sub-contract work commencement date	0 days	Sun 19/12/21	Sun 19/12/21	Sun 19/12/21	Sun 19/12/21	Sun 19/12/21	Sun 19/12/21	0 days	146FF		
148	148	5.13.11	**General - Emergency Power Generator Set (04SC006)**	**146 days**	**Wed 01/07/20**	**Mon 23/11/20**	**Wed 01/07/20**	**Mon 23/11/20**	**Wed 01/07/20**	**Mon 23/11/20**	**0 days**			
149	149	5.13.11.1	Submission for acceptance of subcontract works package	60 edays	Wed 01/07/20	Sun 30/08/20	Wed 01/07/20	Sun 30/08/20	Wed 01/07/20	Sun 30/08/20	0 edays		150	
150	150	5.13.11.2	Invitation of tender for subcontract works	30 edays	Sun 30/08/20	Tue 29/09/20	Sun 30/08/20	Tue 29/09/20	Sun 30/08/20	Tue 29/09/20	0 edays	149	151	
151	151	5.13.11.3	Acceptance of conforming tender	30 edays	Tue 29/09/20	Thu 29/10/20	Tue 29/09/20	Thu 29/10/20	Tue 29/09/20	Thu 29/10/20	0 edays	150	152FF	
152	152	5.13.11.4	Sub-contract work commencement date (Completed)	24 days	Sat 31/10/20	Mon 23/11/20	Sat 31/10/20	Mon 23/11/20	Sat 31/10/20	Mon 23/11/20	0 days	151FF		
153	153	5.13.12	**General - Plumbing Installation (Rev. 5) (04SC021)**	**231 days**	**Wed 01/07/20**	**Tue 16/02/21**	**Wed 01/07/20**	**Tue 16/02/21**	**Wed 01/07/20**	**Thu 17/06/21**	**120 days**			
154	154	5.13.12.1	Submission for acceptance of subcontract works package	30 edays	Wed 01/07/20	Fri 31/07/20	Wed 01/07/20	Fri 31/07/20	Wed 01/07/20	Fri 31/07/20	0 edays		155	
155	155	5.13.12.2	Invitation of tender for subcontract works	75 edays	Fri 31/07/20	Wed 14/10/20	Fri 31/07/20	Wed 14/10/20	Fri 31/07/20	Wed 14/10/20	0 edays	154	156	
156	156	5.13.12.3	Retender of subcontract works (Rev. 5)	14 days	Mon 04/01/21	Sun 17/01/21	Mon 04/01/21	Sun 17/01/21	Mon 04/01/21	Sun 17/01/21	0 days	155	157	
157	157	5.13.12.4	Acceptance of conforming tender (Completed)	30 edays	Sun 17/01/21	Tue 16/02/21	Sun 17/01/21	Tue 16/02/21	Sun 17/01/21	Tue 16/02/21	0 edays	156	158FF	
158	158	5.13.12.5	Sub-contract work commencement date (Extended)	0 days	Tue 16/02/21	Tue 16/02/21	Tue 16/02/21	Tue 16/02/21	Thu 17/06/21	Thu 17/06/21	0 days	157FF	1245	
159	159	5.13.13	**General - Fire Services Installation (Rev. 5) (04SC019)**	**120 days**	**Mon 04/01/21**	**Mon 03/05/21**	**Mon 04/01/21**	**Mon 03/05/21**	**Mon 04/01/21**	**Sun 03/10/21**	**153 days**			
160	160	5.13.13.1	Submission for acceptance of subcontract works package	60 days	Mon 04/01/21	Thu 04/03/21	Mon 04/01/21	Thu 04/03/21	Mon 04/01/21	Thu 04/03/21	0 days		161	
161	161	5.13.13.2	Invitation of tender for subcontract works	30 days	Fri 05/03/21	Sat 03/04/21	Fri 05/03/21	Sat 03/04/21	Fri 05/03/21	Sat 03/04/21	0 days	160	162	
162	162	5.13.13.3	Acceptance of conforming tender (Completed)	30 days	Sun 04/04/21	Mon 03/05/21	Sun 04/04/21	Mon 03/05/21	Sun 04/04/21	Mon 03/05/21	0 days	161	163FF	
163	163	5.13.13.4	Sub-contract work commencement date	0 days	Mon 03/05/21	Mon 03/05/21	Mon 03/05/21	Mon 03/05/21	Sun 03/10/21	Sun 03/10/21	0 days	162FF	1196	
164	164	5.13.14	**General - Lightning Protection System (Rev. 15) (04SC017)**	**100 days**	**Wed 01/09/21**	**Fri 10/12/21**	**Wed 01/09/21**	**Fri 10/12/21**	**Wed 01/09/21**	**Fri 10/12/21**	**0 days**			
165	165	5.13.14.1	Submission for acceptance of subcontract works package (Rev. 13)	40 edays	Wed 01/09/21	Mon 11/10/21	Wed 01/09/21	Mon 11/10/21	Wed 01/09/21	Mon 11/10/21	0 edays		166	
166	166	5.13.14.2	Invitation of tender for subcontract works (Rev. 15)	30 edays	Mon 11/10/21	Wed 10/11/21	Mon 11/10/21	Wed 10/11/21	Mon 11/10/21	Wed 10/11/21	0 edays	165	167	
167	167	5.13.14.3	Acceptance of conforming tender (Rev. 15)	30 edays	Wed 10/11/21	Fri 10/12/21	Wed 10/11/21	Fri 10/12/21	Wed 10/11/21	Fri 10/12/21	0 edays	166	168FF	
168	168	5.13.14.4	Sub-contract work commencement date (Rev. 15)	0 days	Fri 10/12/21	Fri 10/12/21	Fri 10/12/21	Fri 10/12/21	Fri 10/12/21	Fri 10/12/21	0 days	167FF		
169	169	5.13.15	**General - CCTV Installation (Rev. 13) (04SC016)**	**121 days**	**Wed 01/09/21**	**Fri 31/12/21**	**Wed 01/09/21**	**Fri 31/12/21**	**Wed 01/09/21**	**Fri 31/12/21**	**0 days**			
170	170	5.13.15.1	Submission for acceptance of subcontract works package	45 edays	Wed 01/09/21	Sat 16/10/21	Wed 01/09/21	Sat 16/10/21	Wed 01/09/21	Wed 27/10/21	0 edays		171	
171	171	5.13.15.2	Invitation of tender for subcontract works	35 edays	Sat 16/10/21	Sat 20/11/21	Sat 16/10/21	Sat 20/11/21	Wed 27/10/21	Wed 01/12/21	0 edays	170	172	
172	172	5.13.15.3	Acceptance of conforming tender	30 edays	Sat 20/11/21	Mon 20/12/21	Sat 20/11/21	Mon 20/12/21	Wed 01/12/21	Fri 31/12/21	11 edays	171	173FF	
173	173	5.13.15.4	Sub-contract work commencement date	0 days	Fri 31/12/21	Fri 31/12/21	Fri 31/12/21	Fri 31/12/21	Fri 31/12/21	Fri 31/12/21	0 days	172FF		



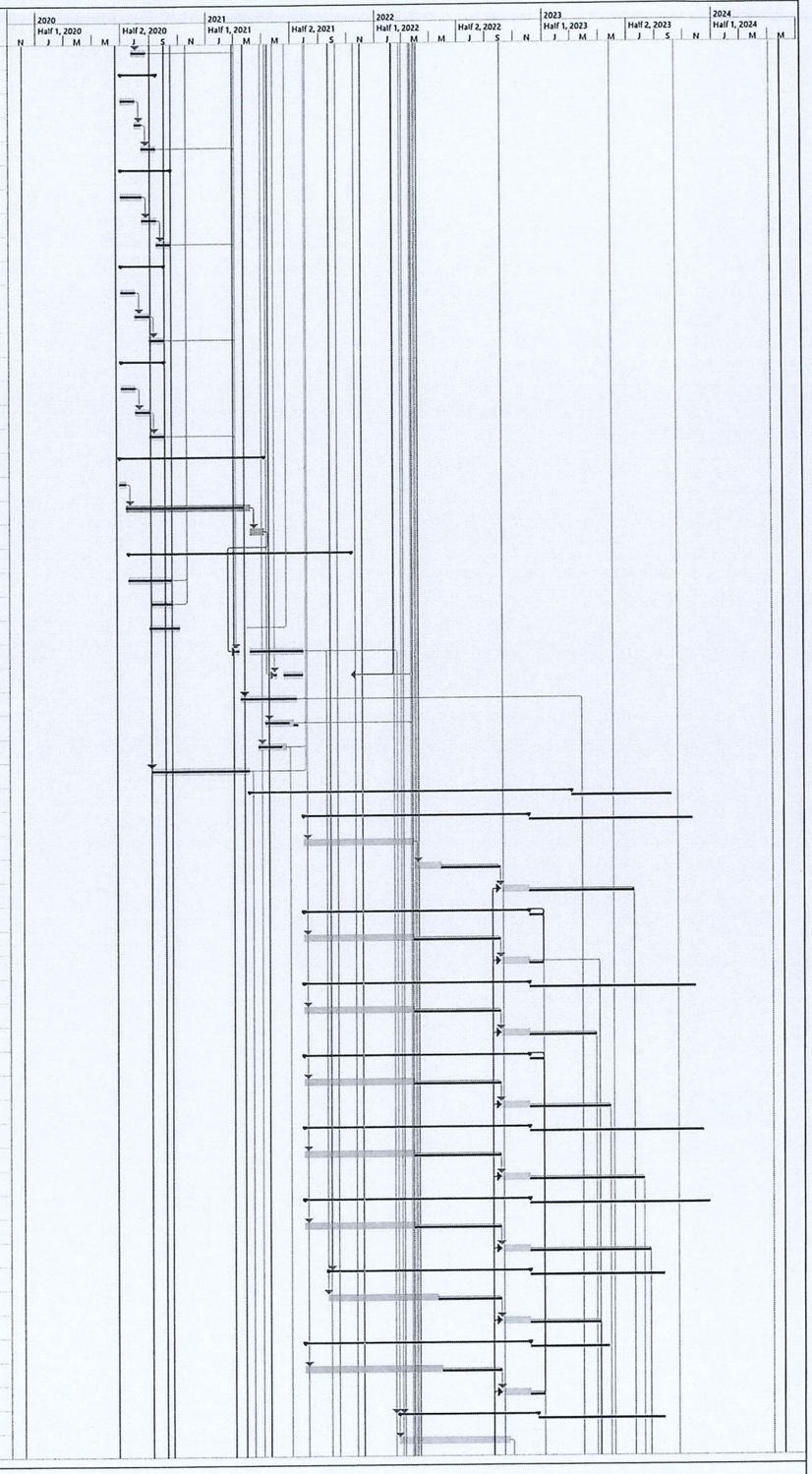
ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
174	174	5.13.16	**General - Civil Construction Work for underground pipework (04SC005)**	40 days	Wed 01/07/20	Mon 10/08/20	Wed 01/07/20	Mon 10/08/20	Wed 01/07/20	Mon 10/08/20	0 days			
175	175	5.13.16.1	Submission for acceptance of subcontract works package	14 days	Wed 01/07/20	Tue 14/07/20	Wed 01/07/20	Tue 14/07/20	Wed 01/07/20	Tue 14/07/20	0 days		176	
176	176	5.13.16.2	Invitation of tender for subcontract works	14 days	Wed 15/07/20	Tue 28/07/20	Wed 15/07/20	Tue 28/07/20	Wed 15/07/20	Tue 28/07/20	0 days	175	177	
177	177	5.13.16.3	Acceptance of conforming tender	7 days	Wed 29/07/20	Tue 04/08/20	Wed 29/07/20	Tue 04/08/20	Wed 29/07/20	Tue 04/08/20	0 days	176	178FF	
178	178	5.13.16.4	Sub-contract work commencement date (Completed)	0 days	Mon 10/08/20	Mon 10/08/20	Mon 10/08/20	Mon 10/08/20	Mon 10/08/20	Mon 10/08/20	0 days	177FF		
179	179	5.13.17	**General - Civil Construction Work for Temp. Filtrate Eq. System (04SC00**	40 days	Wed 01/07/20	Mon 10/08/20	Wed 01/07/20	Mon 10/08/20	Wed 01/07/20	Mon 10/08/20	0 days			
180	180	5.13.17.1	Submission for acceptance of subcontract works package	14 days	Wed 01/07/20	Tue 14/07/20	Wed 01/07/20	Tue 14/07/20	Wed 01/07/20	Tue 14/07/20	0 days		181	
181	181	5.13.17.2	Invitation of tender for subcontract works	14 days	Wed 15/07/20	Tue 28/07/20	Wed 15/07/20	Tue 28/07/20	Wed 15/07/20	Tue 28/07/20	0 days	180	182	
182	182	5.13.17.3	Acceptance of conforming tender	7 days	Wed 29/07/20	Tue 04/08/20	Wed 29/07/20	Tue 04/08/20	Wed 29/07/20	Tue 04/08/20	0 days	181	183FF	
183	183	5.13.17.4	Sub-contract work commencement date (Completed)	0 days	Mon 10/08/20	Mon 10/08/20	Mon 10/08/20	Mon 10/08/20	Mon 10/08/20	Mon 10/08/20	0 days	182FF		
184	184	5.13.18	**Mis - Modification of existing power house (04SC010)**	109 days	Mon 24/02/20	Fri 12/06/20	Mon 24/02/20	Fri 12/06/20	Mon 24/02/20	Fri 12/06/20	0 days			
185	185	5.13.18.1	Submission for acceptance of subcontract works package	90 days	Mon 24/02/20	Sat 23/05/20	Mon 24/02/20	Sat 23/05/20	Mon 24/02/20	Sat 23/05/20	0 days		186	
186	186	5.13.18.2	Invitation of tender for subcontract works	14 days	Sun 24/05/20	Sat 06/06/20	Sun 24/05/20	Sat 06/06/20	Sun 24/05/20	Sat 06/06/20	0 days	185	187	
187	187	5.13.18.3	Acceptance of conforming tender	1 day	Sun 07/06/20	Sun 07/06/20	Sun 07/06/20	Sun 07/06/20	Sun 07/06/20	Sun 07/06/20	0 days	186	188FF	
188	188	5.13.18.4	Sub-contract work commencement date (Completed)	0 days	Fri 12/06/20	Fri 12/06/20	Fri 12/06/20	Fri 12/06/20	Fri 12/06/20	Fri 12/06/20	0 days	187FF	1167	
189	189	5.14	**Part C: General Design Submissions**	788 days	Mon 02/12/19	Thu 27/01/22	Mon 02/12/19	Thu 27/01/22	Mon 02/12/19	Thu 27/01/22	0 days			
190	190	5.14.1	Planned Sectional Completion Date - Section 1	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	191FF,192FI		
191	191	5.14.2	CDS001 - General Design Parameters (Rev. 11)	400 edays	Fri 05/06/20	Sat 10/07/21	Fri 05/06/20	Sat 10/07/21	Fri 05/06/20	Sat 10/07/21	0 edays		190FF	
192	192	5.14.3	CDS020 - Electrical Installation Typical Details	355 edays	Mon 20/07/20	Sat 10/07/21	Mon 20/07/20	Sat 10/07/21	Mon 20/07/20	Sat 10/07/21	0 edays		190FF	
193	193	5.14.4	CDS009 - Detailed Design for Plant Service Water System	125 edays	Mon 01/03/21	Sun 04/07/21	Mon 01/03/21	Sun 04/07/21	Mon 01/03/21	Sun 04/07/21	0 edays		190FF	
194	194	5.14.5	CDS012 - Detailed Design for SCADA System	383.4 edays	Sat 09/01/21	Thu 27/01/22	Sat 09/01/21	Thu 27/01/22	Sat 09/01/21	Thu 27/01/22	0 edays	135	190FF,258FF,405FF,534FI	
195	195	5.14.6	CDS13-1 - Detailed Design for CCTV System	90 edays	Thu 01/04/21	Wed 30/06/21	Thu 01/04/21	Wed 30/06/21	Thu 01/04/21	Mon 12/07/21	12.38 edays		190FF	
196	196	5.14.7	CDS13-2 - Detailed Design for Gas Detection and Monitoring System	90 edays	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Mon 12/07/21	43.38 edays		190FF	
197	197	5.14.8	CDS14-1 - Detailed Design for Power monitoring system (PMS)	90 edays	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Mon 12/07/21	43.38 edays		190FF	
198	198	5.14.9	CDS14-2 - Detailed Design for Computerized maintenance and manageme	90 edays	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Mon 12/07/21	43.38 edays		190FF	
199	199	5.14.10	CDS14-3 - Detailed Design for Information and documents management s	90 edays	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Mon 12/07/21	43.38 edays		190FF	
200	200	5.14.11	CDS031 - Detailed Design for MVAC System	90 edays	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Mon 12/07/21	43.38 edays		190FF	
201	201	5.14.12	CDS042 - Detailed Design for Lightning Protection System	120 edays	Mon 11/01/21	Tue 11/05/21	Mon 11/01/21	Tue 11/05/21	Mon 11/01/21	Mon 12/07/21	62.38 edays		190FF	
202	202	5.14.13	Design submissions for E&M installation works of existing sludge thickeni	300 edays	Mon 02/12/19	Sun 27/09/20	Mon 02/12/19	Sun 27/09/20	Mon 02/12/19	Sun 27/09/20	0 edays		190FF	
203	203	5.14.14	Design Submission for Earthing and Lightning (Rev. 8)	147.38 edays	Mon 04/01/21	Mon 31/05/21	Mon 04/01/21	Mon 31/05/21	Mon 04/01/21	Mon 12/07/21	42 edays		190FF	
204	204	5.15	**Works Area WA1-C**	374 days	Wed 01/01/20	Fri 08/01/21	Wed 01/01/20	Fri 08/01/21	Wed 01/01/20	Fri 08/01/21	0 days			
205	205	5.15.1	Actual Access / Handover Date	1 day	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	0 days		209	
206	206	5.15.2	Submission for acceptance of subcontract works package (Site Office) (04	60 days	Wed 01/01/20	Sat 29/02/20	Wed 01/01/20	Sat 29/02/20	Wed 01/01/20	Sat 29/02/20	0 days	2SS+30 eday	207	
207	207	5.15.3	Invitation of quotations for subcontract works (Site Office)	21 days	Sun 01/03/20	Sat 21/03/20	Sun 01/03/20	Sat 21/03/20	Sun 01/03/20	Sat 21/03/20	0 days	206	208	
208	208	5.15.4	Acceptance of conforming quotation (Site Office)	10 days	Sun 22/03/20	Tue 31/03/20	Sun 22/03/20	Tue 31/03/20	Sun 22/03/20	Tue 31/03/20	0 days	207	209	
209	209	5.15.5	Design and Fabrication of the Contractor's Site Accommodations	120 days	Wed 01/04/20	Wed 29/07/20	Wed 01/04/20	Wed 29/07/20	Wed 01/04/20	Wed 29/07/20	0 days	205,208	215	
210	210	5.15.6	Submission for acceptance of subcontract works package (Site Office Fou	20 days	Fri 01/05/20	Wed 20/05/20	Fri 01/05/20	Wed 20/05/20	Fri 01/05/20	Wed 20/05/20	0 days		211	
211	211	5.15.7	Invitation of quotations for subcontract works (Site Office Foundation)	18 days	Thu 21/05/20	Sun 07/06/20	Thu 21/05/20	Sun 07/06/20	Thu 21/05/20	Sun 07/06/20	0 days	210	212	
212	212	5.15.8	Acceptance of conforming quotation (Site foundation)	7 days	Mon 08/06/20	Sun 14/06/20	Mon 08/06/20	Sun 14/06/20	Mon 08/06/20	Sun 14/06/20	0 days	211	213	
213	213	5.15.9	Design and Construction of the Contractor's Site Office foundation	30 days	Mon 15/06/20	Tue 14/07/20	Mon 15/06/20	Tue 14/07/20	Mon 15/06/20	Tue 14/07/20	0 days	212	214	
214	214	5.15.10	Construction of Contractor's Site Office foundation (Completed)	47 days	Wed 15/07/20	Sun 30/08/20	Wed 15/07/20	Sun 30/08/20	Wed 15/07/20	Sun 30/08/20	0 days	213	215	
215	215	5.15.11	Site Installation of the Contractor's Site Accommodations (MIC) (Rev. 5)	120 days	Mon 31/08/20	Mon 28/12/20	Mon 31/08/20	Mon 28/12/20	Mon 31/08/20	Mon 28/12/20	0 days	209,214	216	
216	216	5.15.12	Anticipated date of working at site (Rev. 5) (Completed)	4 days	Tue 05/01/21	Fri 08/01/21	Tue 05/01/21	Fri 08/01/21	Tue 05/01/21	Fri 08/01/21	0 days	215		
217	217	5.16	**Works Area WA2-C**	1 day	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	0 days			
218	218	5.16.1	Actual Access / Handover Date	1 day	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	0 days			
219	219	5.17	**Inlet Works No. 1, Portion B-2 (PS 6B.2.1)**	1400 days	Mon 01/06/20	Mon 01/04/24	Mon 01/06/20	Mon 01/04/24	Mon 01/06/20	Mon 01/04/24	0 days			
220	220	5.17.1	Planned Key Date Completion Date - KD1A, IW	0 days	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	0 days	254FF,255FI		
221	221	5.17.2	Planned Key Date Completion Date - KD1B, IW	0 days	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days	256FF		
222	222	5.17.3	Planned Sectional Completion Date - Section 1, IW	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	257FF,258FI		
223	223	5.17.4	Planned Sectional Completion Date - Section 2, IW	0 days	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	0 days			
224	224	5.17.5	**Selection of Suppliers for major plant and materials for Inlet Works No.**	335 days	Mon 01/06/20	Sat 01/05/21	Mon 01/06/20	Sat 01/05/21	Mon 01/06/20	Sat 01/05/21	0 days			
225	225	5.17.5.1	**Inlet Works - inlet Pumps (Marking Scheme Approach), C11, ref. EQT006**	120 days	Mon 01/06/20	Mon 28/09/20	Mon 01/06/20	Mon 28/09/20	Mon 01/06/20	Mon 28/09/20	0 days			
226	226	5.17.5.1.1	Submission for acceptance of purchasing package including proposed marking scheme	60 days	Mon 01/06/20	Thu 30/07/20	Mon 01/06/20	Thu 30/07/20	Mon 01/06/20	Thu 30/07/20	0 days		227	
227	227	5.17.5.1.2	Invitation of quotations for purchasing package	30 days	Fri 31/07/20	Sat 29/08/20	Fri 31/07/20	Sat 29/08/20	Fri 31/07/20	Sat 29/08/20	0 days	226	228	
228	228	5.17.5.1.3	Acceptance of conforming quotation (Completed)	30 days	Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/20	0 days	227	257	
229	229	5.17.5.2	**Inlet Works - mechanical raked bar screens, C11, ref. EQT052**	58 days	Fri 26/06/20	Sat 22/08/20	Fri 26/06/20	Sat 22/08/20	Fri 26/06/20	Sat 22/08/20	0 days			
230	230	5.17.5.2.1	Submission for acceptance of purchasing package	14 days	Fri 26/06/20	Thu 09/07/20	Fri 26/06/20	Thu 09/07/20	Fri 26/06/20	Thu 09/07/20	0 days		231	
231	231	5.17.5.2.2	Invitation of quotations for purchasing package	14 days	Fri 10/07/20	Thu 23/07/20	Fri 10/07/20	Thu 23/07/20	Fri 10/07/20	Thu 23/07/20	0 days	230	232	



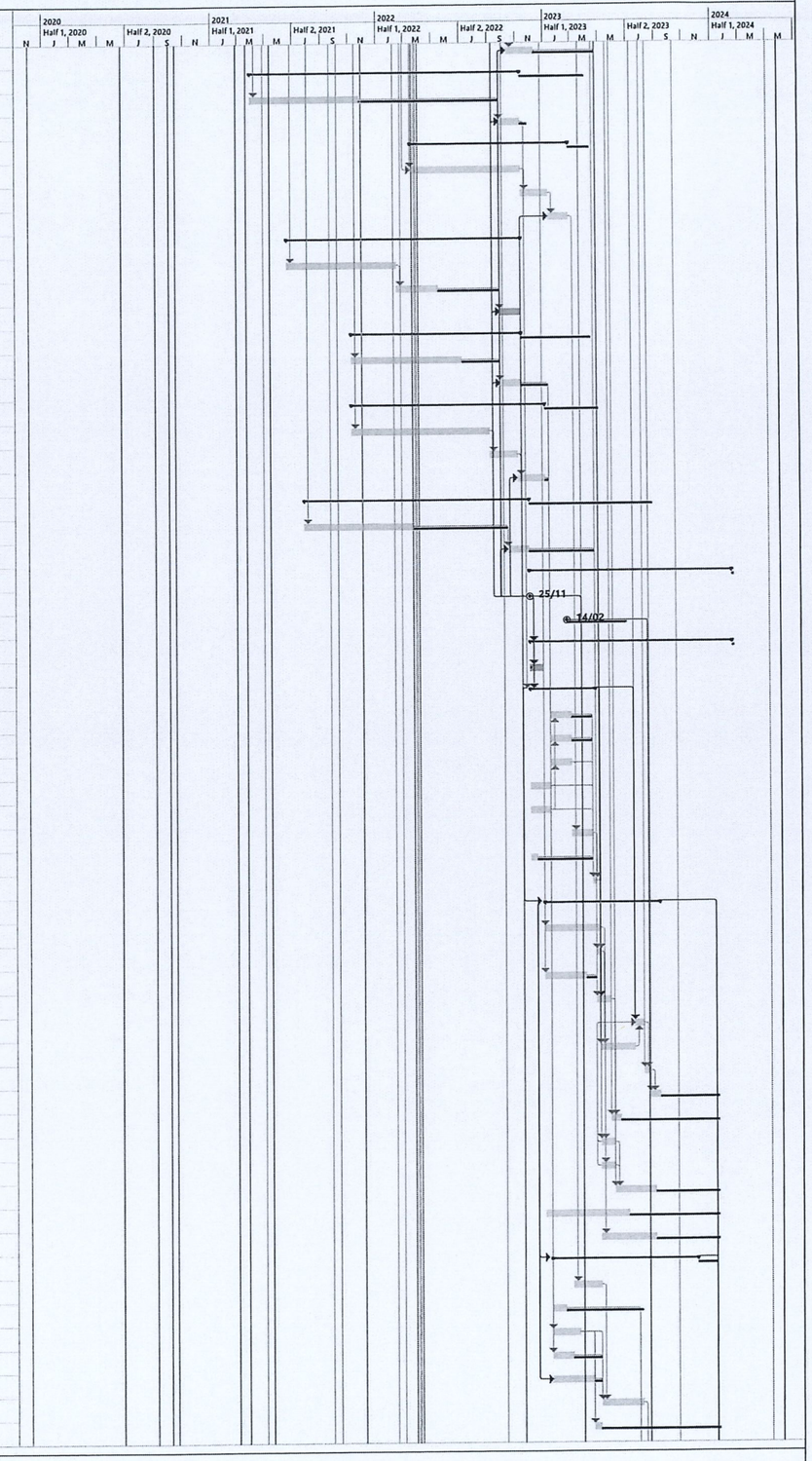
Bestwise
Project: DE/2018/04
Date: 30/11/21

Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

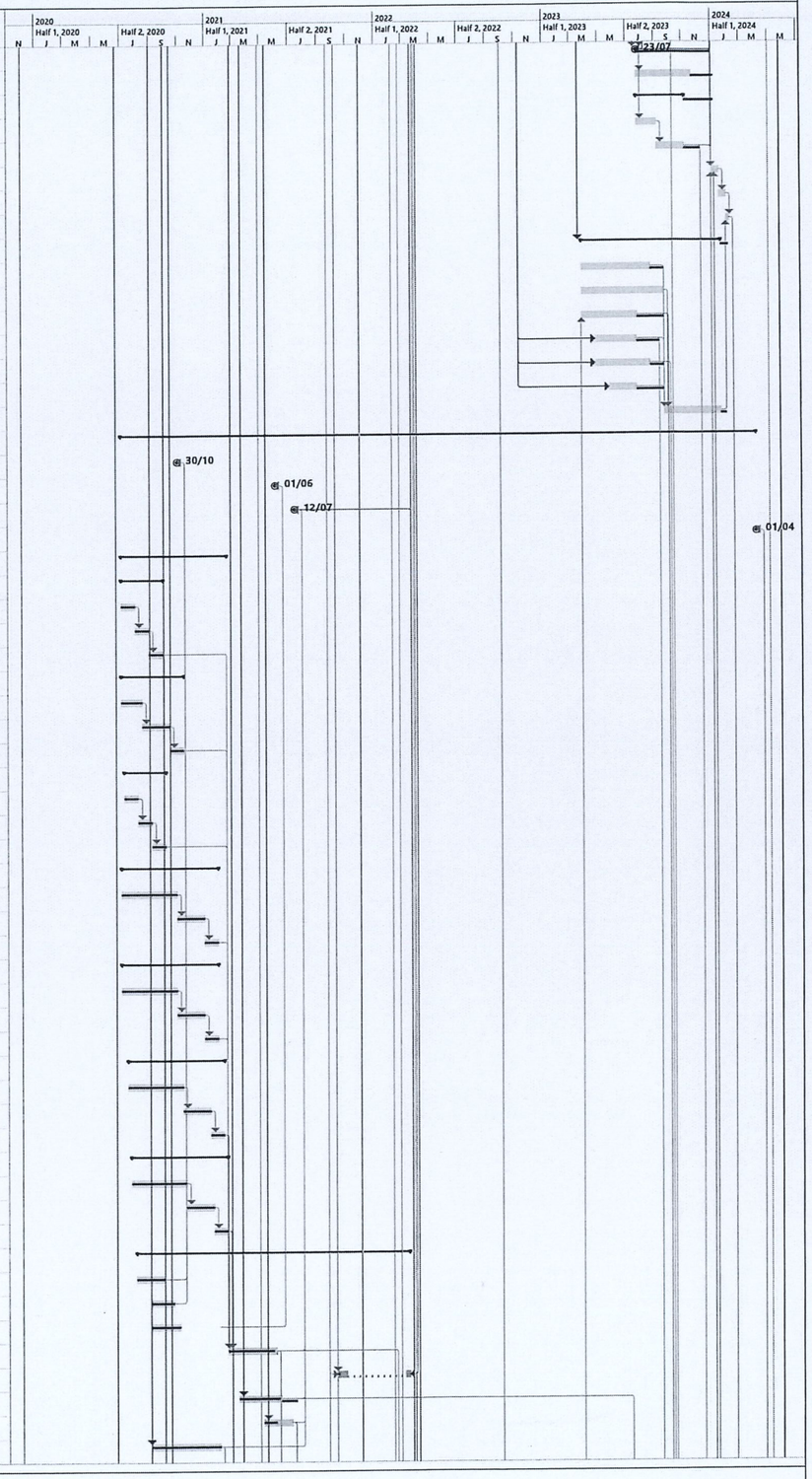
ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
232	232	5.17.5.2.3	Acceptance of conforming quotation (Completed)	30 days	Fri 24/07/20	Sat 22/08/20	Fri 24/07/20	Sat 22/08/20	Fri 24/07/20	Sat 22/08/20	0 days	231	257	
233	233	5.17.5.3	Inlet Works - screening conveyors and Diverters, C11, ref. EQT053	74 days	Wed 01/07/20	Sat 12/09/20	Wed 01/07/20	Sat 12/09/20	Wed 01/07/20	Sat 12/09/20	0 days			
234	234	5.17.5.3.1	Submission for acceptance of purchasing package	30 days	Wed 01/07/20	Thu 30/07/20	Wed 01/07/20	Thu 30/07/20	Wed 01/07/20	Thu 30/07/20	0 days		235	
235	235	5.17.5.3.2	Invitation of quotations for purchasing package	14 days	Fri 31/07/20	Thu 13/08/20	Fri 31/07/20	Thu 13/08/20	Fri 31/07/20	Thu 13/08/20	0 days	234	236	
236	236	5.17.5.3.3	Acceptance of conforming quotation (Completed)	30 days	Fri 14/08/20	Sat 12/09/20	Fri 14/08/20	Sat 12/09/20	Fri 14/08/20	Sat 12/09/20	0 days	235	257	
237	237	5.17.5.4	Inlet Works - screening screw type compactors, C11, ref. EQT003	105 days	Wed 01/07/20	Tue 13/10/20	Wed 01/07/20	Tue 13/10/20	Wed 01/07/20	Tue 13/10/20	0 days			
238	238	5.17.5.4.1	Submission for acceptance of purchasing package	45 days	Wed 01/07/20	Fri 14/08/20	Wed 01/07/20	Fri 14/08/20	Wed 01/07/20	Fri 14/08/20	0 days		239	
239	239	5.17.5.4.2	Invitation of quotations for purchasing package	30 days	Sat 15/08/20	Sun 13/09/20	Sat 15/08/20	Sun 13/09/20	Sat 15/08/20	Sun 13/09/20	0 days	238	240	
240	240	5.17.5.4.3	Acceptance of conforming quotation (Completed)	30 days	Mon 14/09/20	Tue 13/10/20	Mon 14/09/20	Tue 13/10/20	Mon 14/09/20	Tue 13/10/20	0 days	239	257	
241	241	5.17.5.5	Inlet Works - grit removal system, C11, ref. EQT004	90 days	Wed 01/07/20	Mon 28/09/20	Wed 01/07/20	Mon 28/09/20	Wed 01/07/20	Mon 28/09/20	0 days			
242	242	5.17.5.5.1	Submission for acceptance of purchasing package	30 days	Wed 01/07/20	Thu 30/07/20	Wed 01/07/20	Thu 30/07/20	Wed 01/07/20	Thu 30/07/20	0 days		243	
243	243	5.17.5.5.2	Invitation of quotations for purchasing package	30 days	Fri 31/07/20	Sat 29/08/20	Fri 31/07/20	Sat 29/08/20	Fri 31/07/20	Sat 29/08/20	0 days	242	244	
244	244	5.17.5.5.3	Acceptance of conforming quotation (Completed)	30 days	Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/20	0 days	243	257	
245	245	5.17.5.6	Inlet Works - grit classifiers, C11, ref. EQT005	90 days	Wed 01/07/20	Mon 28/09/20	Wed 01/07/20	Mon 28/09/20	Wed 01/07/20	Mon 28/09/20	0 days			
246	246	5.17.5.6.1	Submission for acceptance of purchasing package	30 days	Wed 01/07/20	Thu 30/07/20	Wed 01/07/20	Thu 30/07/20	Wed 01/07/20	Thu 30/07/20	0 days		247	
247	247	5.17.5.6.2	Invitation of quotations for purchasing package	30 days	Fri 31/07/20	Sat 29/08/20	Fri 31/07/20	Sat 29/08/20	Fri 31/07/20	Sat 29/08/20	0 days	246	248	
248	248	5.17.5.6.3	Acceptance of conforming quotation (Completed)	30 days	Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/20	0 days	247	257	
249	249	5.17.5.7	Inlet Works - Fixed Bar Screen, C11, ref. EQT046 (Rev. 10)	310 days	Fri 26/06/20	Sat 01/05/21	Fri 26/06/20	Sat 01/05/21	Fri 26/06/20	Sat 01/05/21	0 days			
250	250	5.17.5.7.1	Submission for acceptance of purchasing package	14 days	Fri 26/06/20	Thu 09/07/20	Fri 26/06/20	Thu 09/07/20	Fri 26/06/20	Thu 09/07/20	0 days		251	
251	251	5.17.5.7.2	Invitation of quotations for purchasing package	266 days	Fri 10/07/20	Thu 01/04/21	Fri 10/07/20	Thu 01/04/21	Fri 10/07/20	Thu 01/04/21	0 days	250	252	
252	252	5.17.5.7.3	Acceptance of conforming quotation (Rev. 10)	30 days	Fri 02/04/21	Sat 01/05/21	Fri 02/04/21	Sat 01/05/21	Fri 02/04/21	Sat 01/05/21	0 days	251	257	
253	253	5.17.6	Design Submissions for IW	479 days	Wed 15/07/20	Sat 06/11/21	Wed 15/07/20	Sat 06/11/21	Wed 15/07/20	Sat 06/11/21	0 days			
254	254	5.17.6.1	Electrical schematic drawings for Inlet Works No. 1	90 days	Wed 15/07/20	Mon 12/10/20	Wed 15/07/20	Mon 12/10/20	Wed 15/07/20	Mon 12/10/20	0 days		220FF	
255	255	5.17.6.2	CDS080-1 - Civil and dimensional requirements drawings for Inlet Works No. 1	45 days	Tue 01/09/20	Thu 15/10/20	Tue 01/09/20	Thu 15/10/20	Tue 01/09/20	Thu 15/10/20	0 days		220FF	
256	256	5.17.6.3	CDS081-1 - Civil and dimensional requirements drawings for Inlet Work	210 days	Fri 28/08/20	Thu 25/03/21	Fri 28/08/20	Thu 25/03/21	Fri 28/08/20	Thu 25/03/21	0 days		221FF	
257	257	5.17.6.4	CDS002 - Detailed Design for Inlet Works No. 1	144 edays	Mon 01/03/21	Fri 23/07/21	Mon 01/03/21	Fri 23/07/21	Mon 01/03/21	Fri 23/07/21	0 edays	232,236,22	265,287,272,275,278,281	
258	258	5.17.6.5	CDS021 - Detailed Design for Electrical Installations for Inlet Works No.	166.63 edays	Sun 23/05/21	Sat 06/11/21	Sun 23/05/21	Sat 06/11/21	Sun 23/05/21	Sat 06/11/21	0 edays	75,81,85,89	76,304,296,307,222FF	
259	259	5.17.6.6	CDS034-1 - Detailed Design for Electrical Installations BS at Inlet Works	120 edays	Fri 12/03/21	Sat 10/07/21	Fri 12/03/21	Sat 10/07/21	Fri 12/03/21	Sat 10/07/21	0 edays	140	358,222FF	
260	260	5.17.6.7	CDS025-1 - Detailed Design for LV Switchboards for Inlet Works No. 1	60 edays	Mon 03/05/21	Fri 02/07/21	Mon 03/05/21	Fri 02/07/21	Mon 03/05/21	Mon 12/07/21	10 edays	71	296,222FF	
261	261	5.17.6.8	CDS026-1 - Detailed Design for HV Switchboards for Inlet Works No. 1	60 edays	Sun 18/04/21	Thu 17/06/21	Sun 18/04/21	Thu 17/06/21	Sun 18/04/21	Mon 12/07/21	0.63 edays	67	300,222FF	
262	262	5.17.6.9	CDS050-1 - Detailed Design for Lifting Appliances - Inlet Works No. 1	210 edays	Tue 01/09/20	Tue 30/03/21	Tue 01/09/20	Tue 30/03/21	Tue 01/09/20	Tue 30/03/21	0 edays	120	293,222FF	
263	263	5.17.7	Manufacturing and Delivery of Plant & Materials	696 days	Tue 30/03/21	Thu 23/02/23	Tue 30/03/21	Thu 23/02/23	Sun 31/10/21	Sat 16/12/23	215 days			
264	264	5.17.7.1	Inlet Pumps, EQT006	489 days	Sat 24/07/21	Thu 24/11/22	Sat 24/07/21	Thu 24/11/22	Thu 17/11/22	Sat 11/11/23	352 days			
265	265	5.17.7.1.1	Manufacturing of Inlet Pumps, EQT006	240 days	Sat 24/07/21	Sun 20/03/22	Sat 24/07/21	Sun 20/03/22	Thu 17/11/22	Fri 14/07/23	0 days	257	266	
266	266	5.17.7.1.2	Factory Acceptance Test of Plant (to be witnessed by PM)	60 days	Mon 21/03/22	Thu 19/05/22	Mon 21/03/22	Thu 19/05/22	Sat 15/07/23	Tue 12/09/23	129 days	265	267	
267	267	5.17.7.1.3	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	Mon 26/09/22	Thu 24/11/22	Wed 13/09/23	Sat 11/11/23	225 days	266,314SS-6	332	
268	268	5.17.7.2	Mechanical Raked Bar Screen, EQT052	489 days	Sat 24/07/21	Thu 24/11/22	Sat 24/07/21	Thu 24/11/22	Sun 23/10/22	Fri 18/08/23	31 days		328	
269	269	5.17.7.2.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sat 24/07/21	Sun 20/03/22	Sat 24/07/21	Sun 20/03/22	Sun 23/10/22	Mon 19/06/23	189 days	257	270	
270	270	5.17.7.2.2	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	Mon 26/09/22	Thu 24/11/22	Tue 20/06/23	Fri 18/08/23	31 days	269,314SS-6	330,333	
271	271	5.17.7.3	Screening Conveyors and Diverters, EQT053	489 days	Sat 24/07/21	Thu 24/11/22	Sat 24/07/21	Thu 24/11/22	Sat 21/01/23	Thu 16/11/23	357 days			
272	272	5.17.7.3.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sat 24/07/21	Sun 20/03/22	Sat 24/07/21	Sun 20/03/22	Sat 21/01/23	Sun 17/09/23	189 days	257	273	
273	273	5.17.7.3.2	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	Mon 26/09/22	Thu 24/11/22	Mon 18/09/23	Thu 16/11/23	143 days	272,314SS-6	331	
274	274	5.17.7.4	Screening Screw Type Compactors, EQT003	489 days	Sat 24/07/21	Thu 24/11/22	Sat 24/07/21	Thu 24/11/22	Mon 20/02/23	Sat 16/12/23	31 days		328	
275	275	5.17.7.4.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sat 24/07/21	Sun 20/03/22	Sat 24/07/21	Sun 20/03/22	Mon 20/02/23	Tue 17/10/23	189 days	257	276	
276	276	5.17.7.4.2	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	Mon 26/09/22	Thu 24/11/22	Wed 18/10/23	Sat 16/12/23	173 days	275,314SS-6	336	
277	277	5.17.7.5	Grit Removal System, EQT004	489 days	Sat 24/07/21	Thu 24/11/22	Sat 24/07/21	Thu 24/11/22	Mon 06/02/23	Sat 02/12/23	373 days			
278	278	5.17.7.5.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sat 24/07/21	Sun 20/03/22	Sat 24/07/21	Sun 20/03/22	Mon 06/02/23	Tue 03/10/23	189 days	257	279	
279	279	5.17.7.5.2	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	Mon 26/09/22	Thu 24/11/22	Wed 04/10/23	Sat 02/12/23	246 days	278,314SS-6	334	
280	280	5.17.7.6	Grit Classifiers, EQT005	489 days	Sat 24/07/21	Thu 24/11/22	Sat 24/07/21	Thu 24/11/22	Mon 20/02/23	Sat 16/12/23	387 days			
281	281	5.17.7.6.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sat 24/07/21	Sun 20/03/22	Sat 24/07/21	Sun 20/03/22	Mon 20/02/23	Tue 17/10/23	189 days	257	282	
282	282	5.17.7.6.2	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	Mon 26/09/22	Thu 24/11/22	Wed 18/10/23	Sat 16/12/23	260 days	281,314SS-6	335	
283	283	5.17.7.7	Pipework, EQT036 (Rev. 11)	438 days	Mon 13/09/21	Thu 24/11/22	Mon 13/09/21	Thu 24/11/22	Sun 13/11/22	Fri 08/09/23	288 days	56		
284	284	5.17.7.7.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Mon 13/09/21	Tue 10/05/22	Mon 13/09/21	Tue 10/05/22	Sun 13/11/22	Mon 10/07/23	138 days	257	285	
285	285	5.17.7.7.2	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	Mon 26/09/22	Thu 24/11/22	Tue 11/07/23	Fri 08/09/23	151 days	284,314SS-6	337	
286	286	5.17.7.8	Stoplogs and Penstocks, EQT013	489 days	Sat 24/07/21	Thu 24/11/22	Sat 24/07/21	Thu 24/11/22	Tue 17/05/22	Thu 11/05/23	168 days			
287	287	5.17.7.8.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Sat 24/07/21	Thu 19/05/22	Sat 24/07/21	Thu 19/05/22	Tue 17/05/22	Sun 12/03/23	129 days	257	288	
288	288	5.17.7.8.2	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	Mon 26/09/22	Thu 24/11/22	Mon 13/03/23	Thu 11/05/23	31 days	287,314SS-6	328	
289	289	5.17.7.9	Valves and Actuators, EQT036, EQT042 (Rev. 11)	300 days	Mon 14/02/22	Sat 10/12/22	Mon 14/02/22	Sat 10/12/22	Sun 13/11/22	Fri 08/09/23	272 days	56,63		
290	290	5.17.7.9.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Mon 14/02/22	Tue 11/10/22	Mon 14/02/22	Tue 11/10/22	Sun 13/11/22	Mon 10/07/23	0 days	257	291	



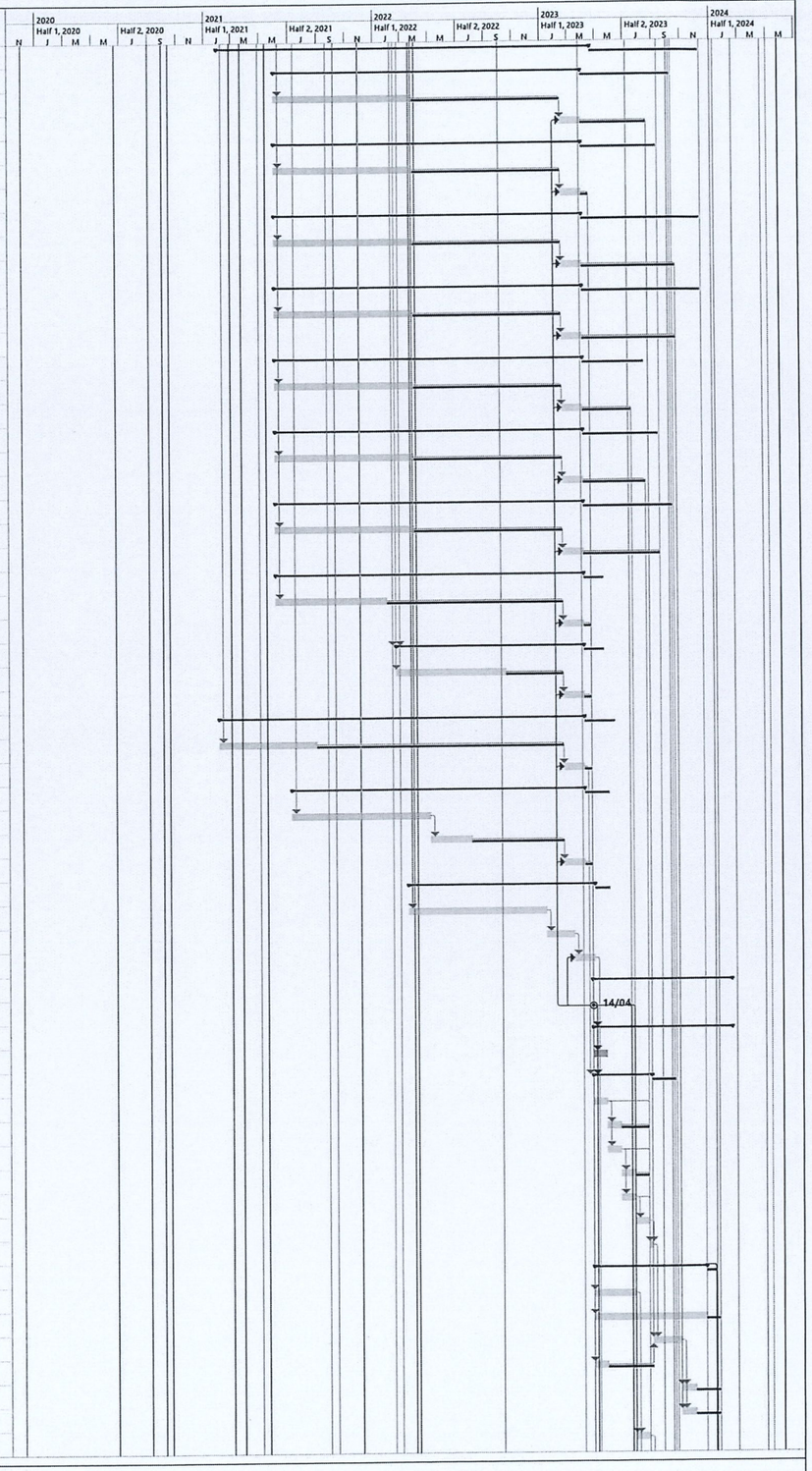
ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
291	291	5.17.7.9.2	Shipping and Delivery of Plant to site	60 days	Wed 12/10/22	Sat 10/12/22	Wed 12/10/22	Sat 10/12/22	Tue 11/07/23	Fri 08/09/23	135 days	290,314SS-6	337	
292	292	5.17.7.10	**Lifting Appliances**	590 days	Tue 30/03/21	Wed 09/11/22	Tue 30/03/21	Wed 09/11/22	Tue 21/06/22	Sat 01/04/23	143 days			
293	293	5.17.7.10.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Tue 30/03/21	Wed 24/11/21	Tue 30/03/21	Wed 24/11/21	Tue 21/06/22	Wed 15/02/23	305 days	262	294	
294	294	5.17.7.10.2	Shipping and Delivery of Plant to site	45 days	Mon 26/09/22	Wed 09/11/22	Mon 26/09/22	Wed 09/11/22	Thu 16/02/23	Sat 01/04/23	16 days	293,314SS-6	318	
295	295	5.17.7.11	**LV Switchboards**	345 days	Wed 16/03/22	Thu 23/02/23	Wed 16/03/22	Thu 23/02/23	Mon 02/05/22	Tue 11/04/23	47 days			
296	296	5.17.7.11.1	IW - Manufacturing of Plant	240 days	Wed 16/03/22	Thu 10/11/22	Wed 16/03/22	Thu 10/11/22	Mon 02/05/22	Tue 27/12/22	0 days	258,260,275	297	
297	297	5.17.7.11.2	IW - Factory Acceptance Test of Plant (to be witnessed by PM)	60 days	Fri 11/11/22	Mon 09/01/23	Fri 11/11/22	Mon 09/01/23	Wed 28/12/22	Sat 25/02/23	0 days	296	298	
298	298	5.17.7.11.3	IW - Shipping and Delivery of Plant to site	45 days	Tue 10/01/23	Thu 23/02/23	Tue 10/01/23	Thu 23/02/23	Sun 26/02/23	Tue 11/04/23	0 days	314SS-60 ed	343	
299	299	5.17.7.12	**HV Switchboards, EQT031**	510 days	Fri 18/06/21	Wed 09/11/22	Fri 18/06/21	Wed 09/11/22	Sun 31/10/21	Wed 09/11/22	0 days			
300	300	5.17.7.12.1	IW - Manufacturing of Plant	240 days	Fri 18/06/21	Sat 12/02/22	Fri 18/06/21	Sat 12/02/22	Sun 31/10/21	Mon 27/06/22	0 days	261	301	
301	301	5.17.7.12.2	IW - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days	Sun 13/02/22	Fri 13/05/22	Sun 13/02/22	Fri 13/05/22	Tue 28/06/22	Sun 25/09/22	135 days	300	302	
302	302	5.17.7.12.3	IW - Shipping and Delivery of Plant to site	45 days	Mon 26/09/22	Wed 09/11/22	Mon 26/09/22	Wed 09/11/22	Mon 26/09/22	Wed 09/11/22	0 days	301,314SS-6		
303	303	5.17.7.13	**11kV/380V Stepdown Power Transformers, EQT032**	369 days	Sat 06/11/21	Wed 09/11/22	Sat 06/11/21	Wed 09/11/22	Fri 01/07/22	Tue 11/04/23	153 days			
304	304	5.17.7.13.1	IW - Manufacturing and Factory Acceptance Test of Plant	240 days	Sat 06/11/21	Sun 03/07/22	Sat 06/11/21	Sun 03/07/22	Fri 01/07/22	Sat 25/02/23	84 days	258	305	
305	305	5.17.7.13.2	IW - Shipping and Delivery of Plant to site	45 days	Mon 26/09/22	Wed 09/11/22	Mon 26/09/22	Wed 09/11/22	Sun 26/02/23	Tue 11/04/23	60 days	304,314SS-6	345	
306	306	5.17.7.14	**PLC System**	420 days	Sat 06/11/21	Fri 30/12/22	Sat 06/11/21	Fri 30/12/22	Thu 03/03/22	Wed 26/04/23	117 days			
307	307	5.17.7.14.1	Manufacturing of Plant, PLC for IW	300 days	Sat 06/11/21	Thu 01/09/22	Sat 06/11/21	Thu 01/09/22	Thu 03/03/22	Tue 27/12/22	0 days	258	308	
308	308	5.17.7.14.2	Factory Acceptance Test of Plant, PLC for IW (To be witnessed by PM	60 days	Fri 02/09/22	Mon 31/10/22	Fri 02/09/22	Mon 31/10/22	Wed 28/12/22	Sat 25/02/23	0 days	307	309	
309	309	5.17.7.14.3	Shipping and Delivery of Plant to site	60 days	Tue 01/11/22	Fri 30/12/22	Tue 01/11/22	Fri 30/12/22	Sun 26/02/23	Wed 26/04/23	9 days	314SS-60 ed	346	
310	310	5.17.7.15	**Fixed Bar Screen, EQT046**	489 days	Sat 24/07/21	Thu 24/11/22	Sat 24/07/21	Thu 24/11/22	Thu 10/11/22	Mon 21/08/23	270 days			
311	311	5.17.7.15.1	IW - Manufacturing and Factory Acceptance Test of Plant	240 days	Sat 24/07/21	Sun 20/03/22	Sat 24/07/21	Sun 20/03/22	Thu 10/11/22	Fri 07/07/23	204 days	257	312	
312	312	5.17.7.15.2	IW - Shipping and Delivery of Plant to site	45 days	Tue 11/10/22	Thu 24/11/22	Tue 11/10/22	Thu 24/11/22	Sat 08/07/23	Mon 21/08/23	143 days	311,314SS-4	329	
313	313	5.17.8	**Site Installation Work**	440 days	Fri 25/11/22	Wed 07/02/24	Fri 25/11/22	Wed 07/02/24	Fri 25/11/22	Tue 13/02/24	5 days			
314	314	5.17.8.1	Tentative Civil Handover Date, Portion B-2, Inlet Works No. 1 (Rev. 5)	1 day	Fri 25/11/22	Fri 25/11/22	Fri 25/11/22	Fri 25/11/22	Fri 25/11/22	Fri 25/11/22	0 days		318,316,358FS+120 days,	
315	315	5.17.8.2	Tentative Civil Handover Date, HV cables draw pits from MFB2 to IW	1 day	Tue 14/02/23	Tue 14/02/23	Tue 14/02/23	Tue 14/02/23	Thu 07/12/23	Thu 07/12/23	129 days		350FF+30 days	
316	316	5.17.8.3	**Commencement of E&M Installation at Inlet Works No. 1**	439 days	Sat 26/11/22	Wed 07/02/24	Sat 26/11/22	Wed 07/02/24	Sat 26/11/22	Tue 13/02/24	5 days	314		
317	317	5.17.8.3.1	Provision of Temporary Water Supply, Electricity Supply, Lighting, W	30 days	Sat 26/11/22	Sun 25/12/22	Sat 26/11/22	Sun 25/12/22	Sat 26/11/22	Sun 25/12/22	0 days	314		
318	318	5.17.8.3.2	**Installation of Lifting Appliances at Inlet Works No. 1**	142 days	Sat 26/11/22	Sun 16/04/23	Sat 26/11/22	Sun 16/04/23	Sun 02/04/23	Mon 21/08/23	0 days	314,294	327SS+30 days,331,332	
319	319	5.17.8.3.2.1	1/F EOT Crane LA-01-01 SWL 5t	45 days	Tue 10/01/23	Thu 23/02/23	Tue 10/01/23	Thu 23/02/23	Sat 01/07/23	Mon 14/08/23	45 days	322,323	326	LA - A x 4~6 men
320	320	5.17.8.3.2.2	1/F EOT Crane LA-01-02 SWL 5t	45 days	Tue 10/01/23	Thu 23/02/23	Tue 10/01/23	Thu 23/02/23	Sat 01/07/23	Mon 14/08/23	45 days	322,323	326	LA - B x 4~6 men
321	321	5.17.8.3.2.3	1/F EOT Crane LA-01-03 SWL 5t	45 days	Tue 10/01/23	Thu 23/02/23	Tue 10/01/23	Thu 23/02/23	Wed 17/05/23	Fri 30/06/23	0 days	322,323	324,326	LA - C x 4~6 men
322	322	5.17.8.3.2.4	UG EOT Crane LA-01-04 SWL 10t	45 days	Sat 26/11/22	Mon 09/01/23	Sat 26/11/22	Mon 09/01/23	Sun 02/04/23	Tue 16/05/23	0 days		319,320,321,326	LA - A x 4~6 men
323	323	5.17.8.3.2.5	UG EOT Crane LA-01-05 SWL 10t	45 days	Sat 26/11/22	Mon 09/01/23	Sat 26/11/22	Mon 09/01/23	Sun 02/04/23	Tue 16/05/23	0 days		319,320,321,326	LA - B x 4~6 men
324	324	5.17.8.3.2.6	1/F Retractable Crane LA-01-06 SWL 10t	45 days	Fri 24/02/23	Sun 09/04/23	Fri 24/02/23	Sun 09/04/23	Sat 01/07/23	Mon 14/08/23	0 days	321	326	LA - C x 4~6 men
325	325	5.17.8.3.2.7	Submission of T&C Plan and Procedures of LA for acceptance	14 days	Sat 26/11/22	Fri 09/12/22	Sat 26/11/22	Fri 09/12/22	Tue 01/08/23	Mon 14/08/23	121 days		326	
326	326	5.17.8.3.2.8	T&C, Loading Test for Lifting Appliances	7 days	Mon 10/04/23	Sun 16/04/23	Mon 10/04/23	Sun 16/04/23	Tue 15/08/23	Mon 21/08/23	0 days	319,320,321	329	LA - B x 4~6 men
327	327	5.17.8.3.3	**Mechanical Installations for Inlet Works No. 1**	250 days	Mon 26/12/22	Fri 01/09/23	Mon 26/12/22	Fri 01/09/23	Fri 12/05/23	Sat 06/01/24	0 days	318SS+30 d	342SS+14 days,355,347S	
328	328	5.17.8.3.3.1	Installation of penstocks and stoplogs (Penstock 3Snos, Stoplogs 3	120 days	Mon 26/12/22	Mon 24/04/23	Mon 26/12/22	Mon 24/04/23	Fri 12/05/23	Fri 08/09/23	0 days	274,268,28E	337,338,341	ME - E x 4~6 men
329	329	5.17.8.3.3.2	Installation of fixed bar screen (x1), EQT046	7 days	Mon 17/04/23	Sun 23/04/23	Mon 17/04/23	Sun 23/04/23	Tue 22/08/23	Mon 28/08/23	0 days	326,312	333	ME - D x 2~4 men
330	330	5.17.8.3.3.3	Installation of mechanical raked coarse bar screens (x4), EQT052	90 days	Mon 26/12/22	Sat 25/03/23	Mon 26/12/22	Sat 25/03/23	Sat 19/08/23	Thu 16/11/23	22 days	270	331	ME - A x 4~6 men
331	331	5.17.8.3.3.4	Installation of screening conveyors (x6), EQT053	30 days	Mon 17/04/23	Tue 16/05/23	Mon 17/04/23	Tue 16/05/23	Fri 17/11/23	Sat 16/12/23	0 days	318,330,27	336	ME - A x 4~6 men
332	332	5.17.8.3.3.5	Installation of inlet pumps (x5), EQT006	21 days	Sat 08/07/23	Fri 28/07/23	Sat 08/07/23	Fri 28/07/23	Sun 12/11/23	Sat 02/12/23	0 days	318,337SS+	334	ME - B x 4~6 men
333	333	5.17.8.3.3.6	Installation of mechanical raked fine bar screens (x4), EQT052	75 days	Mon 24/04/23	Fri 07/07/23	Mon 24/04/23	Fri 07/07/23	Tue 29/08/23	Sat 11/11/23	0 days	329,270	332	ME - B x 4~6 men
334	334	5.17.8.3.3.7	Installation of grit removal system (x3), EQT004	14 days	Sat 29/07/23	Fri 11/08/23	Sat 29/07/23	Fri 11/08/23	Sun 03/12/23	Sat 16/12/23	0 days	332,279	335	ME - B x 4~6 men
335	335	5.17.8.3.3.8	Installation of grit classifiers (x2), EQT005	21 days	Sat 12/08/23	Fri 01/09/23	Sat 12/08/23	Fri 01/09/23	Sun 17/12/23	Sat 06/01/24	127 days	334,282		ME - B x 4~6 men
336	336	5.17.8.3.3.9	Installation of compactors (x2), EQT003	21 days	Wed 17/05/23	Tue 06/06/23	Wed 17/05/23	Tue 06/06/23	Sun 17/12/23	Sat 06/01/24	214 days	331,276		ME - A x 4~6 men
337	337	5.17.8.3.3.10	Installation of pipework and valves, EQT036	30 days	Tue 25/04/23	Wed 24/05/23	Tue 25/04/23	Wed 24/05/23	Sat 09/09/23	Sun 08/10/23	0 days	328,285,291	332SS+14 days,339	ME - D x 2~4 men
338	338	5.17.8.3.3.11	Pipework pressure tests	30 days	Tue 25/04/23	Wed 24/05/23	Tue 25/04/23	Wed 24/05/23	Sat 09/09/23	Sun 08/10/23	0 days	328	332SS+14 days,339	ME - D x 2~4 men
339	339	5.17.8.3.3.12	Installation of instrumentations, EQT035-1	90 days	Thu 25/05/23	Tue 22/08/23	Thu 25/05/23	Tue 22/08/23	Mon 09/10/23	Sat 06/01/24	137 days	337,338,52		ME - A x 4~6 men
340	340	5.17.8.3.3.13	Installation of Platforms, Covers etc, EQT050	180 days	Mon 26/12/22	Fri 23/06/23	Mon 26/12/22	Fri 23/06/23	Tue 11/07/23	Sat 06/01/24	197 days			ME - D x 2~4 men
341	341	5.17.8.3.3.14	Site Acceptance Tests - mechanical aspects including alignment an	120 days	Tue 25/04/23	Tue 22/08/23	Tue 25/04/23	Tue 22/08/23	Sat 09/09/23	Sat 06/01/24	137 days	328		ME - D x 2~4 men
342	342	5.17.8.3.4	**Electrical Installations for Inlet Works No. 1**	316 days	Mon 09/01/23	Mon 20/11/23	Mon 09/01/23	Mon 20/11/23	Mon 13/03/23	Sun 07/01/24	42 days	327SS+14 d	355	
343	343	5.17.8.3.4.1	Installation of LV Switchboards, IW	60 days	Fri 24/02/23	Mon 24/04/23	Fri 24/02/23	Mon 24/04/23	Wed 12/04/23	Sat 10/06/23	0 days	298	348	LV - A x 4~6 men
344	344	5.17.8.3.4.2	Modification of HV Switchboards, MFB No. 1 (Rev. 8)	30 days	Mon 09/01/23	Tue 07/02/23	Mon 09/01/23	Tue 07/02/23	Fri 08/12/23	Sat 06/01/24	166 days		350	LV - A x 4~6 men
345	345	5.17.8.3.4.3	Installation of Transformer, IW, EQT032	60 days	Mon 09/01/23	Thu 09/03/23	Mon 09/01/23	Thu 09/03/23	Wed 12/04/23	Sat 10/06/23	0 days	305	348,349FS+30 days	EE - A x 4~6 men
346	346	5.17.8.3.4.4	Installation of PLC Panels, IW	45 days	Mon 09/01/23	Wed 22/02/23	Mon 09/01/23	Wed 22/02/23	Thu 27/04/23	Sat 10/06/23	61 days	309	348	EE - B x 4~6 men
347	347	5.17.8.3.4.5	Installation of cable trays and cable containments	90 days	Mon 09/01/23	Sat 08/04/23	Mon 09/01/23	Sat 08/04/23	Mon 13/03/23	Sat 10/06/23	16 days	327SS	348	EE - C x 4~6 men
348	348	5.17.8.3.4.6	Cables laying and terminations	90 days	Tue 25/04/23	Sun 23/07/23	Tue 25/04/23	Sun 23/07/23	Sun 11/06/23	Fri 08/09/23	0 days	343,345,34E	350,353,351	EE - C x 4~6 men
349	349	5.17.8.3.4.7	Energisation of Transformer, IW	14 days	Sun 09/04/23	Sat 22/04/23	Sun 09/04/23	Sat 22/04/23	Sun 24/12/23	Sat 06/01/24	259 days	345FS+30 d		



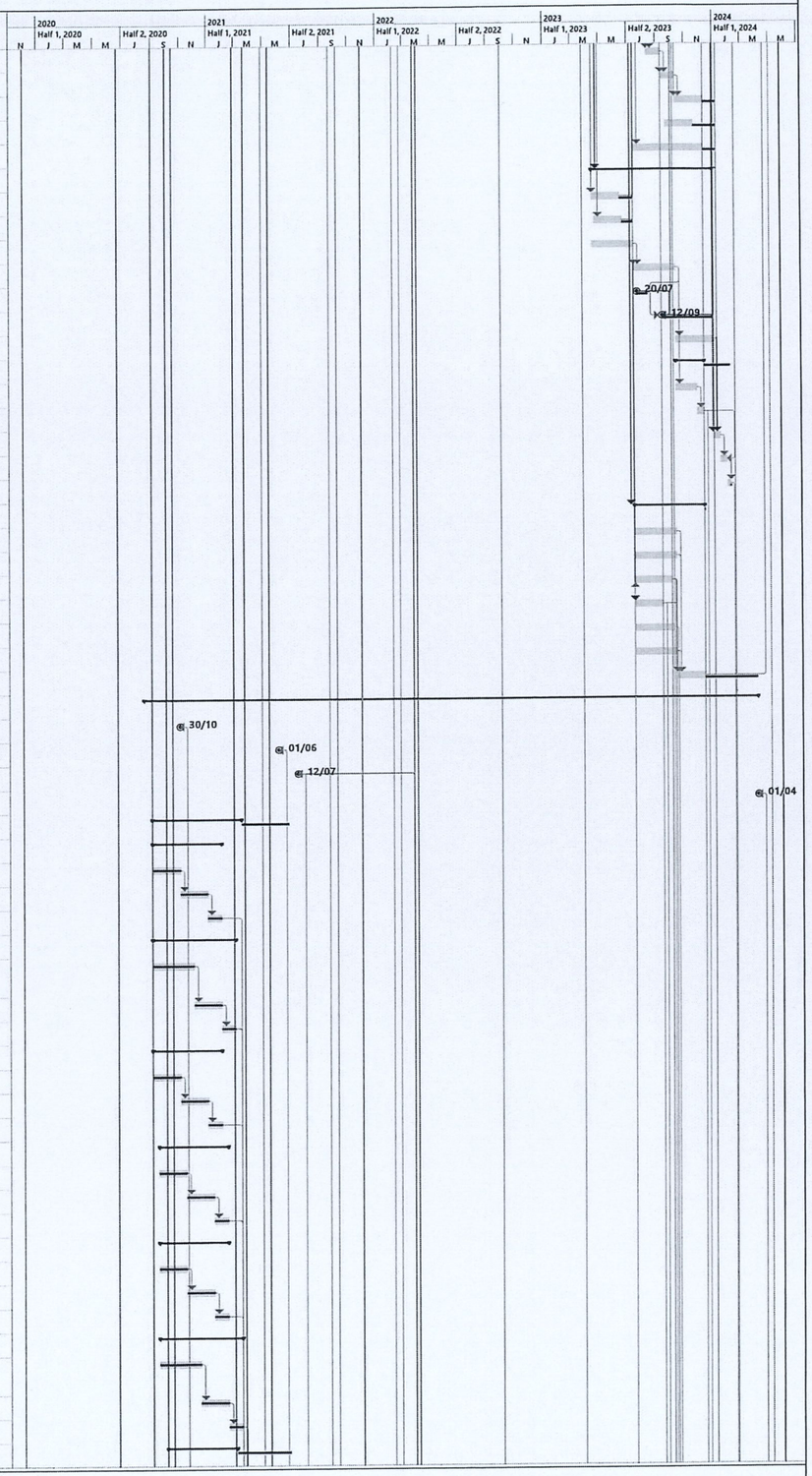
ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
350	350	5.17.8.3.4.5	Energisation of LV Switchboards, IW	0 days	Sun 23/07/23	Sun 23/07/23	Sun 23/07/23	Sun 23/07/23	Sun 07/01/24	Sun 07/01/24	162 days	348,315FF+1	355	LV - A x 4~6 men
351	351	5.17.8.3.4.5	Site Acceptance Tests - Electrical aspects including voltage and cur	120 days	Mon 24/07/23	Mon 20/11/23	Mon 24/07/23	Mon 20/11/23	Sat 09/09/23	Sat 06/01/24	47 days	348		LV - A x 4~6 men
352	352	5.17.8.3.5	**SCADA Systems, Inlet Works**	**105 days**	**Mon 24/07/23**	**Sun 05/11/23**	**Mon 24/07/23**	**Sun 05/11/23**	**Sun 24/09/23**	**Sat 06/01/24**	**62 days**			
353	353	5.17.8.3.5.1	Configuration of PLC System, IW	45 days	Mon 24/07/23	Wed 06/09/23	Mon 24/07/23	Wed 06/09/23	Sun 24/09/23	Tue 07/11/23	0 days	348	354	PLC - A x 1 man
354	354	5.17.8.3.5.2	Site Acceptance Test for PLC System at Inlet Works No. 1	60 days	Thu 07/09/23	Sun 05/11/23	Thu 07/09/23	Sun 05/11/23	Wed 08/11/23	Sat 06/01/24	35 days	353	355,1282	
355	355	5.17.8.3.6	Site Acceptance Test for E&M Equip & Instrumentations calibration,	15 days	Tue 02/01/24	Tue 16/01/24	Tue 02/01/24	Tue 16/01/24	Sun 07/01/24	Sun 21/01/24	0 days	327,342,35(	356	
356	356	5.17.8.3.7	System Commissioning for E&M Equip at Inlet Works No. 1	15 edays	Tue 16/01/24	Wed 31/01/24	Tue 16/01/24	Wed 31/01/24	Mon 22/01/24	Tue 06/02/24	0 edays	355	357	
357	357	5.17.8.3.8	Risk Allowances for completion of Processing Plant at Inlet Works No	7 edays	Wed 31/01/24	Wed 07/02/24	Wed 31/01/24	Wed 07/02/24	Tue 06/02/24	Tue 13/02/24	0.63 edays	356,365	1278	
358	358	5.17.8.3.9	**Building Services Installations for Inlet Works No. 1**	**300 days**	**Sun 26/03/23**	**Fri 19/01/24**	**Sun 26/03/23**	**Fri 19/01/24**	**Wed 12/04/23**	**Mon 05/02/24**	**17 days**	314FS+120 (		
359	359	5.17.8.3.9.1	Mechanical Ventilation and Air Conditioning System, IW	150 days	Sun 26/03/23	Tue 22/08/23	Sun 26/03/23	Tue 22/08/23	Fri 12/05/23	Sun 08/10/23	30 days		365	MVAC - B x 4~6 men
360	360	5.17.8.3.9.2	Lighting and Power Distribution System, IW	180 days	Sun 26/03/23	Thu 21/09/23	Sun 26/03/23	Thu 21/09/23	Wed 12/04/23	Sun 08/10/23	0 days		365	BS - A x 4~6 men
361	361	5.17.8.3.9.3	Plumbing Installation, IW	120 days	Sun 26/03/23	Sun 23/07/23	Sun 26/03/23	Sun 23/07/23	Tue 06/06/23	Tue 03/10/23	60 days	1249	1251,365	Pb - A x 4~6 men
362	362	5.17.8.3.9.4	CCTV Installation (5 Indoor +5 outdoor Cameras), IW	90 days	Mon 24/04/23	Sat 22/07/23	Mon 24/04/23	Sat 22/07/23	Tue 11/07/23	Sun 08/10/23	51 days	314SS+150 (	365,1281	BS - B x 4~6 men
363	363	5.17.8.3.9.5	Fire Services Installation, IW	120 days	Mon 24/04/23	Mon 21/08/23	Mon 24/04/23	Mon 21/08/23	Sun 11/06/23	Sun 08/10/23	31 days	314SS+150 (	1202,1214,1215,365	FS - A x 4~6 men
364	364	5.17.8.3.9.6	Earthing and Lightning Protection System, IW	60 days	Wed 24/05/23	Sat 22/07/23	Wed 24/05/23	Sat 22/07/23	Thu 10/08/23	Sun 08/10/23	61 days	314SS+180 (	365	BS - C x 2~4 men
365	365	5.17.8.3.9.7	Testing and Commissioning of Building Services Installations, IW	120 days	Fri 22/09/23	Fri 19/01/24	Fri 22/09/23	Fri 19/01/24	Mon 09/10/23	Mon 05/02/24	12 days	359,360,361	357	BS - C x 2~4 men
366	366	5.18	**Primary Sedimentation Tanks No. 1 ~ 4, Portion B-3 (PS 6B2.2)**	**1371 days**	**Wed 01/07/20**	**Mon 01/04/24**	**Wed 01/07/20**	**Mon 01/04/24**	**Wed 01/07/20**	**Mon 01/04/24**	**0 days**			
367	367	5.18.1	Planned Key Date Completion Date - KD1A, PST No. 1~4	0 days	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	0 days	401FF,402FI		
368	368	5.18.2	Planned Key Date Completion Date - KD1B, PST No. 1~4	1 day	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days	403FF		
369	369	5.18.3	Planned Sectional Completion Date - Section 1, PST No. 1~4	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	406FF,405FI		
370	370	5.18.4	Planned Sectional Completion Date - Section 2, PST No. 1~4	0 days	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	0 days	494FF		
371	371	5.18.5	**Selection of Suppliers for major plant and materials for PST No. 1~4**	**230 days**	**Wed 01/07/20**	**Mon 15/02/21**	**Wed 01/07/20**	**Mon 15/02/21**	**Wed 01/07/20**	**Mon 15/02/21**	**0 days**			
372	372	5.18.5.1	PST - lamella plate settlers, C11, ref. EQT014	90 days	Wed 01/07/20	Mon 28/09/20	Wed 01/07/20	Mon 28/09/20	Wed 01/07/20	Mon 28/09/20	0 days			
373	373	5.18.5.1.1	Submission for acceptance of purchasing package	30 days	Wed 01/07/20	Thu 30/07/20	Wed 01/07/20	Thu 30/07/20	Wed 01/07/20	Thu 30/07/20	0 days		374	
374	374	5.18.5.1.2	Invitation of quotations for purchasing package	30 days	Fri 31/07/20	Sat 29/08/20	Fri 31/07/20	Sat 29/08/20	Fri 31/07/20	Sat 29/08/20	0 days	373	375	
375	375	5.18.5.1.3	Acceptance of conforming quotation (Completed)	30 days	Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/20	0 days	374	404	
376	376	5.18.5.2	PST - reciprocating type bottom scrapers, C11, ref. EQT014	135 days	Wed 01/07/20	Thu 12/11/20	Wed 01/07/20	Thu 12/11/20	Wed 01/07/20	Thu 12/11/20	0 days			
377	377	5.18.5.2.1	Submission for acceptance of purchasing package	45 days	Wed 01/07/20	Fri 14/08/20	Wed 01/07/20	Fri 14/08/20	Wed 01/07/20	Fri 14/08/20	0 days		378	
378	378	5.18.5.2.2	Invitation of quotations for purchasing package	60 days	Sat 15/08/20	Tue 13/10/20	Sat 15/08/20	Tue 13/10/20	Sat 15/08/20	Tue 13/10/20	0 days	377	379	
379	379	5.18.5.2.3	Acceptance of conforming quotation (Completed)	30 days	Wed 14/10/20	Thu 12/11/20	Wed 14/10/20	Thu 12/11/20	Wed 14/10/20	Thu 12/11/20	0 days	378	404	
380	380	5.18.5.3	PST - surface scum skimmers, C11, ref. EQT015	90 days	Tue 07/07/20	Sun 04/10/20	Tue 07/07/20	Sun 04/10/20	Tue 07/07/20	Sun 04/10/20	0 days			
381	381	5.18.5.3.1	Submission for acceptance of purchasing package	30 days	Tue 07/07/20	Wed 05/08/20	Tue 07/07/20	Wed 05/08/20	Tue 07/07/20	Wed 05/08/20	0 days		382	
382	382	5.18.5.3.2	Invitation of quotations for purchasing package	30 days	Thu 06/08/20	Fri 04/09/20	Thu 06/08/20	Fri 04/09/20	Thu 06/08/20	Fri 04/09/20	0 days	381	383	
383	383	5.18.5.3.3	Acceptance of conforming quotation	30 days	Sat 05/09/20	Sun 04/10/20	Sat 05/09/20	Sun 04/10/20	Sat 05/09/20	Sun 04/10/20	0 days	382	404	
384	384	5.18.5.4	PST - scum collector pipes, C11, ref. EQT015	210 days	Wed 01/07/20	Tue 26/01/21	Wed 01/07/20	Tue 26/01/21	Wed 01/07/20	Tue 26/01/21	0 days			
385	385	5.18.5.4.1	Submission for acceptance of purchasing package	120 days	Wed 01/07/20	Wed 28/10/20	Wed 01/07/20	Wed 28/10/20	Wed 01/07/20	Wed 28/10/20	0 days		386	
386	386	5.18.5.4.2	Invitation of quotations for purchasing package	60 days	Thu 29/10/20	Sun 27/12/20	Thu 29/10/20	Sun 27/12/20	Thu 29/10/20	Sun 27/12/20	0 days	385	387	
387	387	5.18.5.4.3	Acceptance of conforming quotation	30 days	Mon 28/12/20	Tue 26/01/21	Mon 28/12/20	Tue 26/01/21	Mon 28/12/20	Tue 26/01/21	0 days	386	404	
388	388	5.18.5.5	PST - piston type primary sludge pumps, C11, ref. EQT016	210 days	Wed 01/07/20	Tue 26/01/21	Wed 01/07/20	Tue 26/01/21	Wed 01/07/20	Tue 26/01/21	0 days			
389	389	5.18.5.5.1	Submission for acceptance of purchasing package	120 days	Wed 01/07/20	Wed 28/10/20	Wed 01/07/20	Wed 28/10/20	Wed 01/07/20	Wed 28/10/20	0 days		390	
390	390	5.18.5.5.2	Invitation of quotations for purchasing package	60 days	Thu 29/10/20	Sun 27/12/20	Thu 29/10/20	Sun 27/12/20	Thu 29/10/20	Sun 27/12/20	0 days	389	391	
391	391	5.18.5.5.3	Acceptance of conforming quotation (Completed)	30 days	Mon 28/12/20	Tue 26/01/21	Mon 28/12/20	Tue 26/01/21	Mon 28/12/20	Tue 26/01/21	0 days	390	404	
392	392	5.18.5.6	PST - drain pumps, C11, ref. EQT007	210 days	Tue 14/07/20	Mon 08/02/21	Tue 14/07/20	Mon 08/02/21	Tue 14/07/20	Mon 08/02/21	0 days			
393	393	5.18.5.6.1	Submission for acceptance of purchasing package	120 days	Tue 14/07/20	Tue 10/11/20	Tue 14/07/20	Tue 10/11/20	Tue 14/07/20	Tue 10/11/20	0 days		394	
394	394	5.18.5.6.2	Invitation of quotations for purchasing package	60 days	Wed 11/11/20	Sat 09/01/21	Wed 11/11/20	Sat 09/01/21	Wed 11/11/20	Sat 09/01/21	0 days	393	395	
395	395	5.18.5.6.3	Acceptance of conforming quotation (Completed)	30 days	Sun 10/01/21	Mon 08/02/21	Sun 10/01/21	Mon 08/02/21	Sun 10/01/21	Mon 08/02/21	0 days	394	404	
396	396	5.18.5.7	PST - air blowers, C11, ref. EQT018	210 days	Tue 21/07/20	Mon 15/02/21	Tue 21/07/20	Mon 15/02/21	Tue 21/07/20	Mon 15/02/21	0 days			
397	397	5.18.5.7.1	Submission for acceptance of purchasing package	120 days	Tue 21/07/20	Tue 17/11/20	Tue 21/07/20	Tue 17/11/20	Tue 21/07/20	Tue 17/11/20	0 days		398	
398	398	5.18.5.7.2	Invitation of quotations for purchasing package	60 days	Wed 18/11/20	Sat 16/01/21	Wed 18/11/20	Sat 16/01/21	Wed 18/11/20	Sat 16/01/21	0 days	397	399	
399	399	5.18.5.7.3	Acceptance of conforming quotation	30 days	Sun 17/01/21	Mon 15/02/21	Sun 17/01/21	Mon 15/02/21	Sun 17/01/21	Mon 15/02/21	0 days	398	404	
400	400	5.18.6	**Design Submissions for PST No. 1~ 4**	**587 days**	**Sat 01/08/20**	**Fri 11/03/22**	**Sat 01/08/20**	**Fri 11/03/22**	**Sat 01/08/20**	**Fri 11/03/22**	**0 days**			
401	401	5.18.6.1	Electrical schematic drawings for PST No. 1 ~4	60 days	Sat 01/08/20	Tue 29/09/20	Sat 01/08/20	Tue 29/09/20	Sat 01/08/20	Tue 29/09/20	0 days		367FF	
402	402	5.18.6.2	CDS080-2 - Civil and dimensional requirements drawings for PST No. 1~4 up to	50 days	Tue 01/09/20	Tue 20/10/20	Tue 01/09/20	Tue 20/10/20	Tue 01/09/20	Tue 20/10/20	0 days		367FF	
403	403	5.18.6.3	CDS081-2 - Civil and dimensional requirements drawings for PST No. 1	150 days	Tue 01/09/20	Thu 28/01/21	Tue 01/09/20	Thu 28/01/21	Tue 01/09/20	Thu 28/01/21	0 days		368FF	
404	404	5.18.6.4	CDS003 - Detailed Design for Primary Sedimentation Tanks No. 1~4	104 edays	Mon 15/02/21	Sun 30/05/21	Mon 15/02/21	Sun 30/05/21	Mon 15/02/21	Mon 12/07/21	0.63 edays	375,379,38	411,414,417,420,423,42	
405	405	5.18.6.5	CDS022 - Detailed Design for Electrical Installations for PST No. 1~4	154.88 edays	Thu 07/10/21	Fri 11/03/22	Thu 07/10/21	Fri 11/03/22	Thu 07/10/21	Fri 11/03/22	0 edays	75,85,93,19	76,445,369FF	
406	406	5.18.6.6	CDS034-2 - Detailed Design for Electrical Installations BS at PST No. 1~4	90 edays	Fri 12/03/21	Thu 10/06/21	Fri 12/03/21	Thu 10/06/21	Fri 12/03/21	Mon 12/07/21	32.38 edays	140	487,369FF	
407	407	5.18.6.7	CDS025-2 - Detailed Design for LV Switchboards for PST No. 1~4	60 edays	Mon 03/05/21	Fri 02/07/21	Mon 03/05/21	Fri 02/07/21	Mon 03/05/21	Mon 12/07/21	0.63 edays	71	441,369FF	
408	408	5.18.6.8	CDS050-2 - Detailed Design for Lifting Appliances - PST No. 1 ~ 4	150 edays	Tue 01/09/20	Fri 29/01/21	Tue 01/09/20	Fri 29/01/21	Tue 01/09/20	Fri 29/01/21	0 edays	120	438,369FF	



ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
409	409	5.18.7	**Manufacturing and Delivery of Plant & Materials**	**811 days**	**Fri 29/01/21**	**Wed 19/04/23**	**Fri 29/01/21**	**Wed 19/04/23**	**Sun 13/03/22**	**Thu 07/12/23**	**232 days**			
410	410	5.18.7.1	**Lamella Plate Settlers, EQT014**	**668 days**	**Mon 31/05/21**	**Wed 29/03/23**	**Mon 31/05/21**	**Wed 29/03/23**	**Sat 29/10/22**	**Sun 08/10/23**	**193 days**			
411	411	5.18.7.1.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Mon 31/05/21	Sat 26/03/22	Mon 31/05/21	Sat 26/03/22	Sat 29/10/22	Thu 24/08/23	323 days	404	412	
412	412	5.18.7.1.2	Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	Mon 13/02/23	Wed 29/03/23	Fri 25/08/23	Sun 08/10/23	143 days	411,449SS-6	463	
413	413	5.18.7.2	**Reciprocating Type Bottom Scrappers, EQT014**	**668 days**	**Mon 31/05/21**	**Wed 29/03/23**	**Mon 31/05/21**	**Wed 29/03/23**	**Thu 29/09/22**	**Fri 08/09/23**	**163 days**			
414	414	5.18.7.2.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Mon 31/05/21	Sat 26/03/22	Mon 31/05/21	Sat 26/03/22	Thu 29/09/22	Tue 25/07/23	323 days	404	415	
415	415	5.18.7.2.2	Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	Mon 13/02/23	Wed 29/03/23	Wed 26/07/23	Fri 08/09/23	16 days	414,449SS-6	464	
416	416	5.18.7.3	**Surface Scum Skimmers, EQT015**	**668 days**	**Mon 31/05/21**	**Wed 29/03/23**	**Mon 31/05/21**	**Wed 29/03/23**	**Wed 28/12/22**	**Thu 07/12/23**	**253 days**			
417	417	5.18.7.3.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Mon 31/05/21	Sat 26/03/22	Mon 31/05/21	Sat 26/03/22	Wed 28/12/22	Mon 23/10/23	323 days	404	418	
418	418	5.18.7.3.2	Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	Mon 13/02/23	Wed 29/03/23	Tue 24/10/23	Thu 07/12/23	203 days	417,449SS-6	465	
419	419	5.18.7.4	**Surface Scum Collection Pipes, EQT015**	**668 days**	**Mon 31/05/21**	**Wed 29/03/23**	**Mon 31/05/21**	**Wed 29/03/23**	**Wed 28/12/22**	**Thu 07/12/23**	**253 days**			
420	420	5.18.7.4.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Mon 31/05/21	Sat 26/03/22	Mon 31/05/21	Sat 26/03/22	Wed 28/12/22	Mon 23/10/23	323 days	404	421	
421	421	5.18.7.4.2	Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	Mon 13/02/23	Wed 29/03/23	Tue 24/10/23	Thu 07/12/23	203 days	420,449SS-6	466	
422	422	5.18.7.5	**Piston Type Primary Sludge Pumps, EQT016**	**668 days**	**Mon 31/05/21**	**Wed 29/03/23**	**Mon 31/05/21**	**Wed 29/03/23**	**Tue 30/08/22**	**Wed 09/08/23**	**133 days**			
423	423	5.18.7.5.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Mon 31/05/21	Sat 26/03/22	Mon 31/05/21	Sat 26/03/22	Tue 30/08/22	Sun 25/06/23	323 days	404	424	
424	424	5.18.7.5.2	Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	Mon 13/02/23	Wed 29/03/23	Mon 26/06/23	Wed 09/08/23	106 days	423,449SS-6	467	
425	425	5.18.7.6	**Drain Pumps, EQT007**	**668 days**	**Mon 31/05/21**	**Wed 29/03/23**	**Mon 31/05/21**	**Wed 29/03/23**	**Thu 29/09/22**	**Fri 08/09/23**	**163 days**			
426	426	5.18.7.6.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Mon 31/05/21	Sat 26/03/22	Mon 31/05/21	Sat 26/03/22	Thu 29/09/22	Tue 25/07/23	323 days	404	427	
427	427	5.18.7.6.2	Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	Mon 13/02/23	Wed 29/03/23	Wed 26/07/23	Fri 08/09/23	136 days	426,449SS-6	468	
428	428	5.18.7.7	**Air Blower, EQT018**	**668 days**	**Mon 31/05/21**	**Wed 29/03/23**	**Mon 31/05/21**	**Wed 29/03/23**	**Sat 29/10/22**	**Sun 08/10/23**	**193 days**			
429	429	5.18.7.7.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Mon 31/05/21	Sat 26/03/22	Mon 31/05/21	Sat 26/03/22	Sat 29/10/22	Thu 24/08/23	323 days	404	430	
430	430	5.18.7.7.2	Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	Mon 13/02/23	Wed 29/03/23	Fri 25/08/23	Sun 08/10/23	166 days	429,449SS-6	469	
431	431	5.18.7.8	**Stoplogs and Penstocks, EQT013**	**668 days**	**Mon 31/05/21**	**Wed 29/03/23**	**Mon 31/05/21**	**Wed 29/03/23**	**Sun 31/07/22**	**Thu 11/05/23**	**43 days**			
432	432	5.18.7.8.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Mon 31/05/21	Tue 25/01/22	Mon 31/05/21	Tue 25/01/22	Sun 31/07/22	Mon 27/03/23	383 days	404	433	
433	433	5.18.7.8.2	Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	Mon 13/02/23	Wed 29/03/23	Tue 28/03/23	Thu 11/05/23	16 days	449SS-60 ed	461	
434	434	5.18.7.9	**Pipework, Valves and Electric Actuators, EQT036, EQT042 (Rev. 11)**	**409 days**	**Mon 14/02/22**	**Wed 29/03/23**	**Mon 14/02/22**	**Wed 29/03/23**	**Sun 31/07/22**	**Thu 11/05/23**	**43 days**	56,63		
435	435	5.18.7.9.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Mon 14/02/22	Tue 11/10/22	Mon 14/02/22	Tue 11/10/22	Sun 31/07/22	Mon 27/03/23	124 days	404	436	
436	436	5.18.7.9.2	Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	Mon 13/02/23	Wed 29/03/23	Tue 28/03/23	Thu 11/05/23	16 days	435,449SS-6	462	
437	437	5.18.7.10	**Lifting Appliances**	**790 days**	**Fri 29/01/21**	**Wed 29/03/23**	**Fri 29/01/21**	**Wed 29/03/23**	**Thu 22/09/22**	**Sat 03/06/23**	**66 days**			
438	438	5.18.7.10.1	Manufacturing and Factory Acceptance Test of Plant	210 days	Fri 29/01/21	Thu 26/08/21	Fri 29/01/21	Thu 26/08/21	Thu 22/09/22	Wed 19/04/23	535 days	408	439	
439	439	5.18.7.10.2	Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	Mon 13/02/23	Wed 29/03/23	Thu 20/04/23	Sat 03/06/23	16 days	438,449SS-6	452	
440	440	5.18.7.11	**LV Switchboards**	**635 days**	**Sat 03/07/21**	**Wed 29/03/23**	**Sat 03/07/21**	**Wed 29/03/23**	**Sun 13/03/22**	**Sun 21/05/23**	**53 days**			
441	441	5.18.7.11.1	PST - Manufacturing of Plant	300 days	Sat 03/07/21	Thu 28/04/22	Sat 03/07/21	Thu 28/04/22	Sun 13/03/22	Fri 06/01/23	0 days	407	442	
442	442	5.18.7.11.2	PST - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days	Fri 29/04/22	Wed 27/07/22	Fri 29/04/22	Wed 27/07/22	Sat 07/01/23	Thu 06/04/23	200 days	441	443	
443	443	5.18.7.11.3	PST - Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	Mon 13/02/23	Wed 29/03/23	Fri 07/04/23	Sun 21/05/23	16 days	442,449SS-6	474	
444	444	5.18.7.12	**PLC System**	**405 days**	**Fri 11/03/22**	**Wed 19/04/23**	**Fri 11/03/22**	**Wed 19/04/23**	**Tue 12/04/22**	**Sun 21/05/23**	**32 days**			
445	445	5.18.7.12.1	Manufacturing of Plant, PLC for PST	300 days	Fri 11/03/22	Wed 04/01/23	Fri 11/03/22	Wed 04/01/23	Tue 12/04/22	Sun 05/02/23	0 days	405	446	
446	446	5.18.7.12.2	Factory Acceptance Test of Plant, PLC for PST (To be witnessed by PI	60 days	Thu 05/01/23	Sun 05/03/23	Thu 05/01/23	Sun 05/03/23	Mon 06/02/23	Thu 06/04/23	0 days	445	447	
447	447	5.18.7.12.3	Shipping and Delivery of Plant to site	45 days	Mon 06/03/23	Wed 19/04/23	Mon 06/03/23	Wed 19/04/23	Fri 07/04/23	Sun 21/05/23	0 days	446,449SS-6	475	
448	448	5.18.8	**Site Installation Work**	**298 days**	**Fri 14/04/23**	**Mon 05/02/24**	**Fri 14/04/23**	**Mon 05/02/24**	**Fri 14/04/23**	**Mon 01/04/24**	**0 days**			
449	449	5.18.8.1	Tentative Civil Handover Date, Portion B-3, PST No. 1~4 (Rev. 5)	1 day	Fri 14/04/23	Fri 14/04/23	Fri 14/04/23	Fri 14/04/23	Fri 14/04/23	Fri 14/04/23	0 days	452,487FS+90 days,450,4		
450	450	5.18.8.2	**Commencement of E&M Installation at PST No. 1~4**	**297 days**	**Sat 15/04/23**	**Mon 05/02/24**	**Sat 15/04/23**	**Mon 05/02/24**	**Sat 15/04/23**	**Mon 01/04/24**	**0 days**	449		403
451	451	5.18.8.2.1	Provision of Temporary Water Supply, Electricity Supply, Lighting We	30 days	Sat 15/04/23	Sun 14/05/23	Sat 15/04/23	Sun 14/05/23	Sat 15/04/23	Sun 14/05/23	0 days	449		
452	452	5.18.8.2.2	**Installation of Lifting Appliances at PST No. 1~4**	**127 days**	**Sat 15/04/23**	**Sat 19/08/23**	**Sat 15/04/23**	**Sat 19/08/23**	**Sun 04/06/23**	**Sun 08/10/23**	**50 days**	449,439		
453	453	5.18.8.2.2.1	Basement EOT Crane LA-02-01 SWL 10t	30 days	Sat 15/04/23	Sun 14/05/23	Sat 15/04/23	Sun 14/05/23	Sun 04/06/23	Mon 03/07/23	0 days	454,455,459		LA - A x 4~6 men
454	454	5.18.8.2.2.2	Coping Level EOT Crane LA-02-02 SWL 5t	30 days	Mon 15/05/23	Tue 13/06/23	Mon 15/05/23	Tue 13/06/23	Sat 02/09/23	Sun 01/10/23	60 days	453	459	LA - A x 4~6 men
455	455	5.18.8.2.2.3	Coping Level EOT Crane LA-02-03 SWL 5t	30 days	Mon 15/05/23	Tue 13/06/23	Mon 15/05/23	Tue 13/06/23	Tue 04/07/23	Wed 02/08/23	0 days	453	456,457,459	LA - B x 4~6 men
456	456	5.18.8.2.2.4	Coping Level EOT Crane LA-02-04 SWL 5t	30 days	Wed 14/06/23	Thu 13/07/23	Wed 14/06/23	Thu 13/07/23	Sat 02/09/23	Sun 01/10/23	30 days	455	459	LA - A x 4~6 men
457	457	5.18.8.2.2.5	Coping Level EOT Crane LA-02-05 SWL 5t	30 days	Wed 14/06/23	Thu 13/07/23	Wed 14/06/23	Thu 13/07/23	Thu 03/08/23	Fri 01/09/23	0 days	455	458,459	LA - B x 4~6 men
458	458	5.18.8.2.2.6	Coping Level EOT Crane LA-02-06 SWL 2t	30 days	Fri 14/07/23	Sat 12/08/23	Fri 14/07/23	Sat 12/08/23	Sat 02/09/23	Sun 01/10/23	0 days	457	459	LA - A x 4~6 men
459	459	5.18.8.2.2.7	T&C, Loading Test for Lifting Appliances at PST No. 1~4	7 days	Sun 13/08/23	Sat 19/08/23	Sun 13/08/23	Sat 19/08/23	Mon 02/10/23	Sun 08/10/23	0 days	453,454,455	463	LA - A x 4~6 men
460	460	5.18.8.2.3	**Mechanical Installations at PST No. 1~4**	**240 days**	**Sat 15/04/23**	**Sun 10/12/23**	**Sat 15/04/23**	**Sun 10/12/23**	**Fri 12/05/23**	**Sat 06/01/24**	**20 days**		**484**	
461	461	5.18.8.2.3.1	Installation of penstocks and stoplogs (Penstock 18nos, Stoplogs 1	90 days	Sat 15/04/23	Thu 13/07/23	Sat 15/04/23	Thu 13/07/23	Fri 12/05/23	Wed 09/08/23	0 days	433	467,472	ME - E x 4~6 men
462	462	5.18.8.2.3.2	Installation of pipework and valves, EQT036	240 days	Sat 15/04/23	Sun 10/12/23	Sat 15/04/23	Sun 10/12/23	Fri 12/05/23	Sat 06/01/24	27 days	436		ME - B x 4~6 men
463	463	5.18.8.2.3.3	Installation of lamella plate settlers (x4), EQT014	60 days	Sun 20/08/23	Wed 18/10/23	Sun 20/08/23	Wed 18/10/23	Mon 09/10/23	Thu 07/12/23	0 days	464,459,41	2465,466	ME - A x 4~6 men
464	464	5.18.8.2.3.4	Installation of reciprocating type bottom scrapers (x4), EQT014	30 days	Sat 15/04/23	Sun 14/05/23	Sat 15/04/23	Sun 14/05/23	Sat 09/09/23	Sun 08/10/23	97 days	415	463	ME - A x 4~6 men
465	465	5.18.8.2.3.5	Installation of surface scum skimmers (x1), EQT015	30 days	Thu 19/10/23	Fri 17/11/23	Thu 19/10/23	Fri 17/11/23	Fri 08/12/23	Sat 06/01/24	50 days	463,418		ME - A x 4~6 men
466	466	5.18.8.2.3.6	Installation of scum collector pipes (x1), EQT015	30 days	Thu 19/10/23	Fri 17/11/23	Thu 19/10/23	Fri 17/11/23	Fri 08/12/23	Sat 06/01/24	50 days	463,421		ME - B x 4~6 men
467	467	5.18.8.2.3.7	Installation of piston type primary sludge pumps (x3), EQT016	30 days	Fri 14/07/23	Sat 12/08/23	Fri 14/07/23	Sat 12/08/23	Thu 10/08/23	Fri 08/09/23	0 days	461,424	468	ME - C x 4~6 men



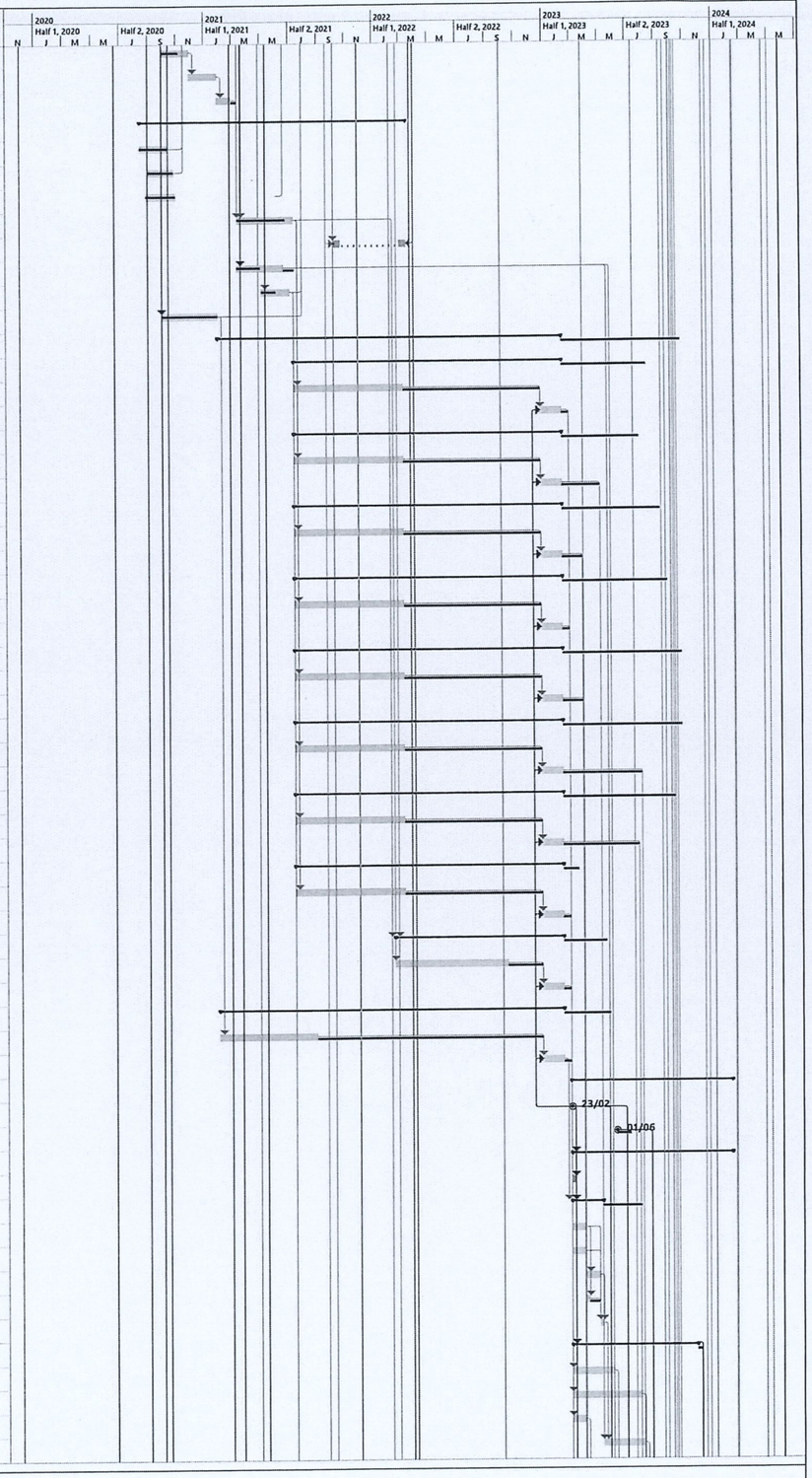
ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
468	468	5.18.8.2.3.5	Installation of drain pumps (x1), EQT007	30 days	Sun 13/08/23	Mon 11/09/23	Sun 13/08/23	Mon 11/09/23	Sat 09/09/23	Sun 08/10/23	0 days	467,427	469	ME - C x 4~6 men
469	469	5.18.8.2.3.6	Installation of air blowers (x2), EQT018	30 days	Tue 12/09/23	Wed 11/10/23	Tue 12/09/23	Wed 11/10/23	Mon 09/10/23	Tue 07/11/23	0 days	468,430	470	ME - C x 4~6 men
470	470	5.18.8.2.3.7	Installation of instrumentations, EQT035-1	60 days	Thu 12/10/23	Sun 10/12/23	Thu 12/10/23	Sun 10/12/23	Wed 08/11/23	Sat 06/01/24	27 days	469,52		ME - C x 4~6 men
471	471	5.18.8.2.3.8	Installation of Platforms, Covers etc., PST, EQT050	60 days	Thu 21/09/23	Sun 19/11/23	Thu 21/09/23	Sun 19/11/23	Wed 08/11/23	Sat 06/01/24	48 days			ME - F x 4~6 men
472	472	5.18.8.2.3.9	Site Acceptance Tests - mechanical aspects including alignment an	150 days	Fri 14/07/23	Sun 10/12/23	Fri 14/07/23	Sun 10/12/23	Thu 10/08/23	Sat 06/01/24	27 days	461		ME - D x 2~4 men
473	473	5.18.8.2.4	**Electrical Installations for PST No. 1~4**	260 days	Sat 15/04/23	Sat 30/12/23	Sat 15/04/23	Sat 30/12/23	Sat 22/04/23	Sat 06/01/24	0 days	449	484	
474	474	5.18.8.2.4.1	Installation of LV Switchboards, PST	60 days	Sat 15/04/23	Tue 13/06/23	Sat 15/04/23	Tue 13/06/23	Mon 22/05/23	Thu 20/07/23	30 days	443	477	LV - A x 4~6 men
475	475	5.18.8.2.4.2	Installation of PLC Panel, PST	60 days	Thu 20/04/23	Sun 18/06/23	Thu 20/04/23	Sun 18/06/23	Mon 22/05/23	Thu 20/07/23	25 days	447	477	EE - A x 4~6 men
476	476	5.18.8.2.4.3	Installation of cable trays and cable containments, PST	90 days	Sat 15/04/23	Thu 13/07/23	Sat 15/04/23	Thu 13/07/23	Sat 22/04/23	Thu 20/07/23	0 days		477	EE - A x 4~6 men
477	477	5.18.8.2.4.4	Cables laying and terminations, PST	90 days	Fri 14/07/23	Wed 11/10/23	Fri 14/07/23	Wed 11/10/23	Fri 21/07/23	Wed 18/10/23	0 days	474,475,476	479FS-30 days,482,480	EE - B x 4~6 men
478	478	5.18.8.2.4.5	Tentative Civil Handover Date, LV cables draw pits from IW to PST	1 day	Thu 20/07/23	Thu 20/07/23	Thu 20/07/23	Thu 20/07/23	Thu 07/12/23	Thu 07/12/23	24 days		479FF+30 days	
479	479	5.18.8.2.4.6	Energisation of LV Switchboards, PST	1 day	Tue 12/09/23	Tue 12/09/23	Tue 12/09/23	Tue 12/09/23	Sat 06/01/24	Sat 06/01/24	109 days	477FS-30 da	484	LV - A x 4~6 men
480	480	5.18.8.2.4.7	Site Acceptance Tests - Electrical aspects including voltage and cur	80 days	Thu 12/10/23	Sat 30/12/23	Thu 12/10/23	Sat 30/12/23	Thu 19/10/23	Sat 06/01/24	2 days	477	355	LV - A x 4~6 men
481	481	5.18.8.2.5	**SCADA Systems, PST No. 1~4**	60 days	Thu 12/10/23	Sun 10/12/23	Thu 12/10/23	Sun 10/12/23	Fri 08/12/23	Mon 05/02/24	57 days			
482	482	5.18.8.2.5.1	Configuration of PLC System	45 days	Thu 12/10/23	Sat 25/11/23	Thu 12/10/23	Sat 25/11/23	Fri 08/12/23	Sun 21/01/24	0 days	477	483	PLC - B x 1 man
483	483	5.18.8.2.5.2	Site Acceptance Test for PLC System at PST No. 1~4	15 days	Sun 26/11/23	Sun 10/12/23	Sun 26/11/23	Sun 10/12/23	Mon 22/01/24	Mon 05/02/24	0 days	482	485FF,1282	PLC - A x 1 man
484	484	5.18.8.2.6	Site Acceptance Test for E&M Equip and Instrumentations calibratio	15 edays	Sat 30/12/23	Sun 14/01/24	Sat 30/12/23	Sun 14/01/24	Sun 07/01/24	Mon 22/01/24	0.63 edays	460,473,475	485	
485	485	5.18.8.2.7	System Commissioning for E&M Equip at PST No, 1~4	15 days	Mon 15/01/24	Mon 29/01/24	Mon 15/01/24	Mon 29/01/24	Mon 22/01/24	Mon 05/02/24	0 days	484,483FF	486	
486	486	5.18.8.2.8	Risk Allowances for Completion of Processing Plant at PST No. 1~4	7 edays	Mon 29/01/24	Mon 05/02/24	Mon 29/01/24	Mon 05/02/24	Tue 06/02/24	Tue 13/02/24	2.63 edays	485	1278	
487	487	5.18.8.2.9	**Building Services Installations for PST No. 1~4**	150 days	Fri 14/07/23	Sun 10/12/23	Fri 14/07/23	Sun 10/12/23	Sun 16/07/23	Mon 01/04/24	2 days	449FS+90 d		
488	488	5.18.8.2.9.1	Mechanical Ventilation and Air Conditioning System, PST	90 days	Fri 14/07/23	Wed 11/10/23	Fri 14/07/23	Wed 11/10/23	Sat 04/11/23	Thu 01/02/24	0 days		494	MVAC - B x 4~6 men
489	489	5.18.8.2.9.2	Lighting and Power Distribution System, PST	90 days	Fri 14/07/23	Wed 11/10/23	Fri 14/07/23	Wed 11/10/23	Sat 04/11/23	Thu 01/02/24	0 days		494	BS - A x 4~6 men
490	490	5.18.8.2.9.3	Plumbing Installation, PST	80 days	Fri 14/07/23	Sun 01/10/23	Fri 14/07/23	Sun 01/10/23	Sun 16/07/23	Tue 03/10/23	0 days	1249	1251,494	Pb - B x 4~6 men
491	491	5.18.8.2.9.4	CCTV Installation (9 indoor + 2 outdoor Cameras), PST	60 days	Fri 14/07/23	Mon 11/09/23	Fri 14/07/23	Mon 11/09/23	Mon 04/12/23	Thu 01/02/24	0 days	449FS+60 d	494,1281	BS - B x 4~6 men
492	492	5.18.8.2.9.5	Fire Services Installation, PST	85 days	Fri 14/07/23	Fri 06/10/23	Fri 14/07/23	Fri 06/10/23	Tue 18/07/23	Tue 10/10/23	0 days		1202,1214,1215,494	FS - A x 4~6 men
493	493	5.18.8.2.9.6	Earthing and Lightning Protection System, PST	90 days	Fri 14/07/23	Wed 11/10/23	Fri 14/07/23	Wed 11/10/23	Sat 04/11/23	Thu 01/02/24	0 days		494	BS - C x 2~4 men
494	494	5.18.8.2.9.7	Testing and Commissioning of Building Services Installations, PST	60 days	Thu 12/10/23	Sun 10/12/23	Thu 12/10/23	Sun 10/12/23	Fri 02/02/24	Mon 01/04/24	113 days	488,489,490	370FF	BS - C x 2~4 men
495	495	5.19	**Bioreactors No. 2A & 2B, Portion B-4 (PS 6B2.4)**	1326 days	Sat 15/08/20	Mon 01/04/24	Sat 15/08/20	Mon 01/04/24	Sat 15/08/20	Mon 01/04/24	0 days			
496	496	5.19.1	Planned Key Date Completion Date - KD1A, BR 2A & 2B	0 days	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	0 days	530FF,531FF		
497	497	5.19.2	Planned Key Date Completion Date - KD1B, BR 2A & 2B	0 days	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days	532FF		
498	498	5.19.3	Planned Sectional Completion Date - Section 1, BR 2A & 2B	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	533FF,534FF		
499	499	5.19.4	Planned Sectional Completion Date - Section 2, BR 2A & 2B	0 days	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	0 days	605FF,604FF		
500	500	5.19.5	**Selection of Suppliers for major plant and materials for BR 2A & 2B**	193 days	Tue 01/09/20	Fri 12/03/21	Tue 01/09/20	Fri 12/03/21	Tue 01/09/20	Tue 22/06/21	102 days			
501	501	5.19.5.1	**BR - pre-treatment fine screens (Marking Scheme Approach), EQT019**	150 days	Tue 01/09/20	Thu 28/01/21	Tue 01/09/20	Thu 28/01/21	Tue 01/09/20	Thu 28/01/21	0 days			
502	502	5.19.5.1.1	Submission for acceptance of purchasing package	60 days	Tue 01/09/20	Fri 30/10/20	Tue 01/09/20	Fri 30/10/20	Tue 01/09/20	Fri 30/10/20	0 days		503	
503	503	5.19.5.1.2	Invitation of quotations for purchasing package	60 days	Sat 31/10/20	Tue 29/12/20	Sat 31/10/20	Tue 29/12/20	Sat 31/10/20	Tue 29/12/20	0 days	502	504	
504	504	5.19.5.1.3	Acceptance of conforming quotation (Completed)	30 days	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	0 days	503	533	
505	505	5.19.5.2	**BR - air diffusion system (Marking Scheme Approach), EQT017**	180 days	Tue 01/09/20	Sat 27/02/21	Tue 01/09/20	Sat 27/02/21	Tue 01/09/20	Sat 27/02/21	0 days			
506	506	5.19.5.2.1	Submission for acceptance of purchasing package including proposed marking scheme	90 days	Tue 01/09/20	Sun 29/11/20	Tue 01/09/20	Sun 29/11/20	Tue 01/09/20	Sun 29/11/20	0 days		507	
507	507	5.19.5.2.2	Invitation of quotations for purchasing package	60 days	Mon 30/11/20	Thu 28/01/21	Mon 30/11/20	Thu 28/01/21	Mon 30/11/20	Thu 28/01/21	0 days	506	508	
508	508	5.19.5.2.3	Acceptance of conforming quotation (Completed)	30 days	Fri 29/01/21	Sat 27/02/21	Fri 29/01/21	Sat 27/02/21	Fri 29/01/21	Sat 27/02/21	0 days	507	533	
509	509	5.19.5.3	**BR - submersible mixers, C11, EQT020**	150 days	Tue 01/09/20	Thu 28/01/21	Tue 01/09/20	Thu 28/01/21	Tue 01/09/20	Thu 28/01/21	0 days			
510	510	5.19.5.3.1	Submission for acceptance of purchasing package	60 days	Tue 01/09/20	Fri 30/10/20	Tue 01/09/20	Fri 30/10/20	Tue 01/09/20	Fri 30/10/20	0 days		511	
511	511	5.19.5.3.2	Invitation of quotations for purchasing package	60 days	Sat 31/10/20	Tue 29/12/20	Sat 31/10/20	Tue 29/12/20	Sat 31/10/20	Tue 29/12/20	0 days	510	512	
512	512	5.19.5.3.3	Acceptance of conforming quotation (Completed)	30 days	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	0 days	511	533	
513	513	5.19.5.4	**BR - mixed liquor return pumps, C11, EQT008**	150 days	Mon 14/09/20	Wed 10/02/21	Mon 14/09/20	Wed 10/02/21	Mon 14/09/20	Wed 10/02/21	0 days			
514	514	5.19.5.4.1	Submission for acceptance of purchasing package	60 days	Mon 14/09/20	Thu 12/11/20	Mon 14/09/20	Thu 12/11/20	Mon 14/09/20	Thu 12/11/20	0 days		515	
515	515	5.19.5.4.2	Invitation of quotations for purchasing package	60 days	Fri 13/11/20	Mon 11/01/21	Fri 13/11/20	Mon 11/01/21	Fri 13/11/20	Mon 11/01/21	0 days	514	516	
516	516	5.19.5.4.3	Acceptance of conforming quotation (Completed)	30 days	Tue 12/01/21	Wed 10/02/21	Tue 12/01/21	Wed 10/02/21	Tue 12/01/21	Wed 10/02/21	0 days	515	533	
517	517	5.19.5.5	**BR - scum removal systems, C11, EQT021, EQT022**	150 days	Mon 14/09/20	Wed 10/02/21	Mon 14/09/20	Wed 10/02/21	Mon 14/09/20	Wed 10/02/21	0 days			
518	518	5.19.5.5.1	Submission for acceptance of purchasing package	60 days	Mon 14/09/20	Thu 12/11/20	Mon 14/09/20	Thu 12/11/20	Mon 14/09/20	Thu 12/11/20	0 days		519	
519	519	5.19.5.5.2	Invitation of quotations for purchasing package	60 days	Fri 13/11/20	Mon 11/01/21	Fri 13/11/20	Mon 11/01/21	Fri 13/11/20	Mon 11/01/21	0 days	518	520	
520	520	5.19.5.5.3	Acceptance of conforming quotation (Completed)	30 days	Tue 12/01/21	Wed 10/02/21	Tue 12/01/21	Wed 10/02/21	Tue 12/01/21	Wed 10/02/21	0 days	519	533	
521	521	5.19.5.6	**BR - aeration blowers (Marking Scheme Approach), EQT039**	180 days	Mon 14/09/20	Fri 12/03/21	Mon 14/09/20	Fri 12/03/21	Mon 14/09/20	Fri 12/03/21	0 days			
522	522	5.19.5.6.1	Submission for acceptance of purchasing package including proposed marking scheme	90 days	Mon 14/09/20	Sat 12/12/20	Mon 14/09/20	Sat 12/12/20	Mon 14/09/20	Sat 12/12/20	0 days		523	
523	523	5.19.5.6.2	Invitation of quotations for purchasing package	60 days	Sun 13/12/20	Wed 10/02/21	Sun 13/12/20	Wed 10/02/21	Sun 13/12/20	Wed 10/02/21	0 days	522	524	
524	524	5.19.5.6.3	Acceptance of conforming quotation (Completed)	30 days	Thu 11/02/21	Fri 12/03/21	Thu 11/02/21	Fri 12/03/21	Thu 11/02/21	Fri 12/03/21	0 days	523	533	
525	525	5.19.5.7	**BR - instrumentations, C11, EQT035-2**	150 days	Thu 01/10/20	Sat 27/02/21	Thu 01/10/20	Sat 27/02/21	Thu 01/10/20	Tue 22/06/21	115 days			



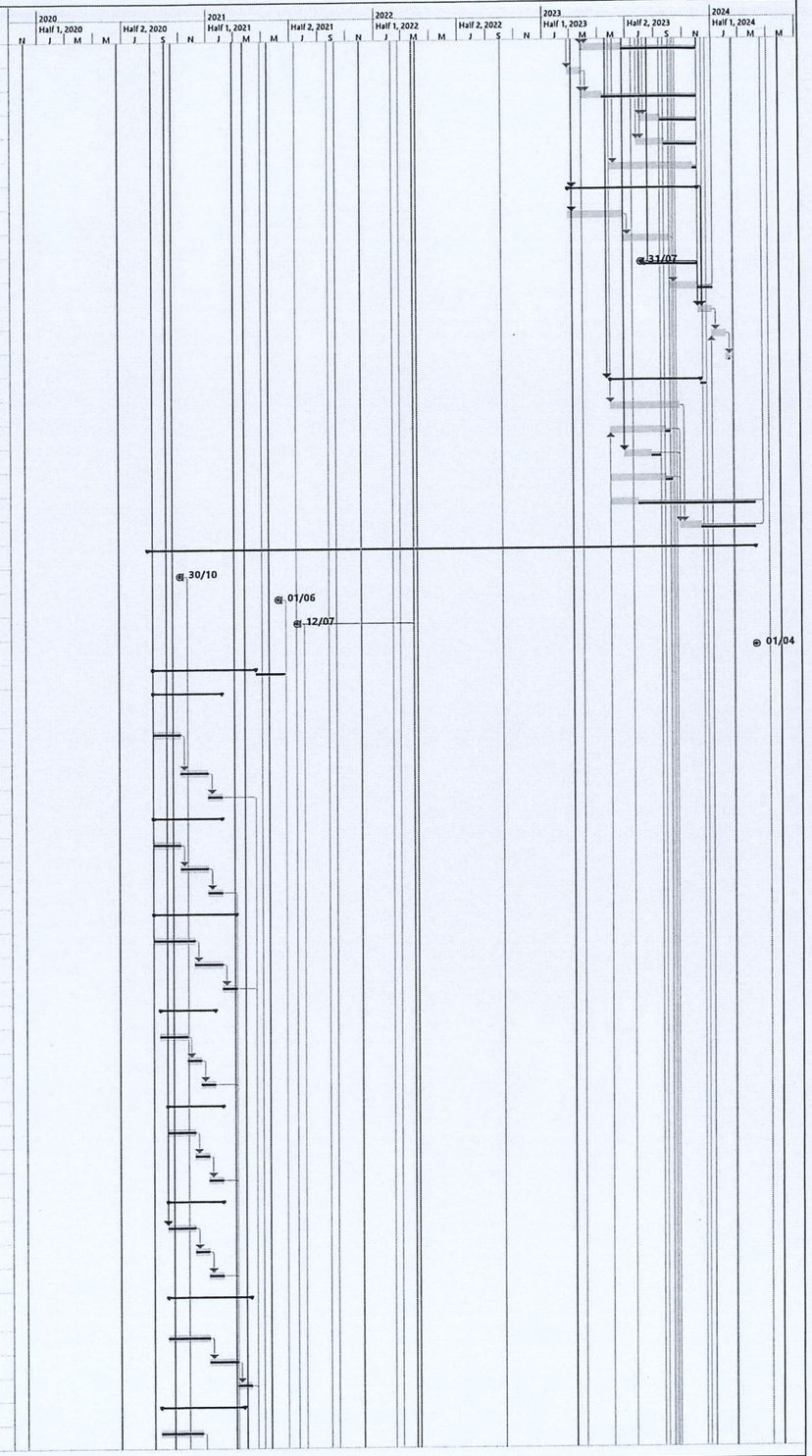
Bestwise
Project: DE/2018/04
Date: 30/11/21

Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

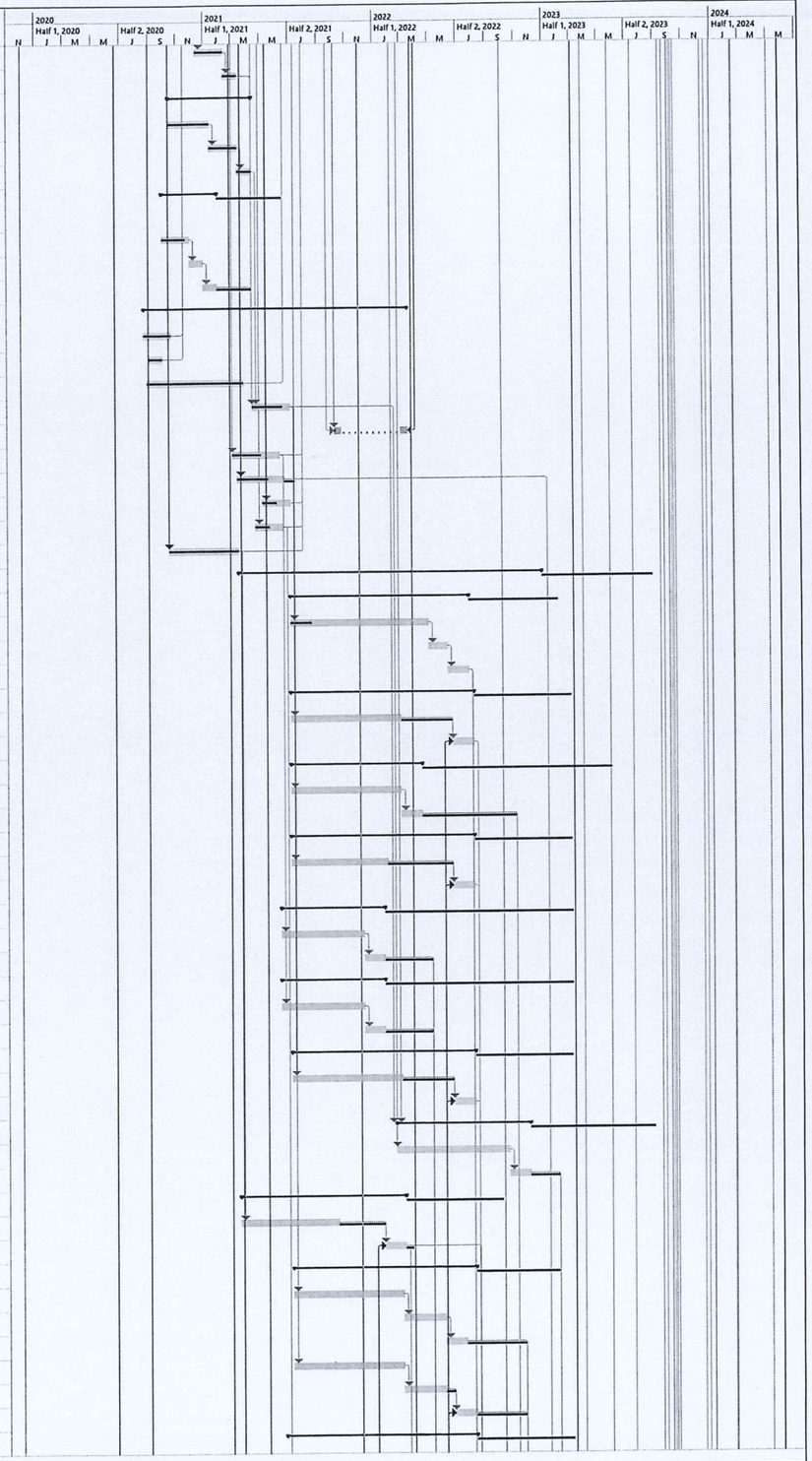
ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
526	526	5.19.5.7.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Wed 24/03/21	0 days		527	
527	527	5.19.5.7.2	Invitation of quotations for purchasing package	60 days	Mon 30/11/20	Thu 28/01/21	Mon 30/11/20	Thu 28/01/21	Thu 25/03/21	Sun 23/05/21	0 days	526	528	
528	528	5.19.5.7.3	Acceptance of conforming quotation	30 days	Fri 29/01/21	Sat 27/02/21	Fri 29/01/21	Sat 27/02/21	Mon 24/05/21	Tue 22/06/21	13 days	527	533	
529	529	5.19.6	**Design Submissions for BR 2A & 2B**	**578 days**	**Sat 15/08/20**	**Tue 15/03/22**	**Sat 15/08/20**	**Tue 15/03/22**	**Sat 15/08/20**	**Tue 15/03/22**	**0 days**			
530	530	5.19.6.1	Electrical schematic drawings for BR No. 2A & 2B	60 days	Sat 15/08/20	Tue 13/10/20	Sat 15/08/20	Tue 13/10/20	Sat 15/08/20	Tue 13/10/20	0 days		496FF	
531	531	5.19.6.2	CDS080-3 - Civil and dimensional requirements drawings for BR 2A&2B up to +	55 days	Tue 01/09/20	Sun 25/10/20	Tue 01/09/20	Sun 25/10/20	Tue 01/09/20	Sun 25/10/20	0 days		496FF	
532	532	5.19.6.3	CDS081-3 - Civil and dimensional requirements drawings for BR 2A & 2I	281 days	Fri 28/08/20	Fri 04/06/21	Fri 28/08/20	Fri 04/06/21	Fri 28/08/20	Fri 04/06/21	0 days		497FF	
533	533	5.19.6.4	CDS004 - Detailed Design for Bioreactor 2A and 2B	120 edays	Fri 12/03/21	Sat 10/07/21	Fri 12/03/21	Sat 10/07/21	Fri 12/03/21	Mon 12/07/21	0.63 edays	504,508,517	540,543,546,549,552,555	
534	534	5.19.6.5	CDS023 - Detailed Design for Electrical Installations for BR No. 2A & 2B	159.38 edays	Thu 07/10/21	Tue 15/03/22	Thu 07/10/21	Tue 15/03/22	Thu 07/10/21	Tue 15/03/22	0 edays	75,85,93,19-	76,498FF,707	
535	535	5.19.6.6	CDS034-3 - Detailed Design for Electrical Installations BS at BR No. 2A &	100 edays	Fri 12/03/21	Sun 20/06/21	Fri 12/03/21	Sun 20/06/21	Fri 12/03/21	Mon 12/07/21	22.38 edays	140	599,498FF,600	
536	536	5.19.6.7	CDS025-3 - Detailed Design for LV Switchboards for BR 2A and 2B	60 edays	Mon 03/05/21	Fri 02/07/21	Mon 03/05/21	Fri 02/07/21	Mon 03/05/21	Mon 12/07/21	0.63 edays	71	693,498FF	
537	537	5.19.6.8	CDS050-3 - Detailed Design for Lifting Appliances - BR 2A & 2B	120 edays	Thu 01/10/20	Fri 29/01/21	Thu 01/10/20	Fri 29/01/21	Thu 01/10/20	Fri 29/01/21	0 edays	120	567,498FF	
538	538	5.19.7	**Manufacturing and Delivery of Plant & Materials**	**740 days**	**Fri 29/01/21**	**Tue 07/02/23**	**Fri 29/01/21**	**Tue 07/02/23**	**Wed 01/06/22**	**Mon 23/10/23**	**258 days**			
539	539	5.19.7.1	**Pre-treatment Fine Screens, EQT019**	**577 days**	**Sun 11/07/21**	**Tue 07/02/23**	**Sun 11/07/21**	**Tue 07/02/23**	**Mon 31/10/22**	**Fri 11/08/23**	**185 days**			
540	540	5.19.7.1.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sun 11/07/21	Mon 07/03/22	Sun 11/07/21	Mon 07/03/22	Mon 31/10/22	Tue 27/06/23	292 days	533	541	
541	541	5.19.7.1.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	Sun 25/12/22	Tue 07/02/23	Wed 28/06/23	Fri 11/08/23	16 days	540,570SS-65	583	
542	542	5.19.7.2	**Air Diffusion System, EQT017**	**577 days**	**Sun 11/07/21**	**Tue 07/02/23**	**Sun 11/07/21**	**Tue 07/02/23**	**Fri 14/10/22**	**Tue 25/07/23**	**168 days**			
543	543	5.19.7.2.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sun 11/07/21	Mon 07/03/22	Sun 11/07/21	Mon 07/03/22	Fri 14/10/22	Sat 10/06/23	292 days	533	544	
544	544	5.19.7.2.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	Sun 25/12/22	Tue 07/02/23	Sun 11/06/23	Tue 25/07/23	83 days	543,570SS-65	584	
545	545	5.19.7.3	**Submersible Mixer, EQT020**	**577 days**	**Sun 11/07/21**	**Tue 07/02/23**	**Sun 11/07/21**	**Tue 07/02/23**	**Mon 28/11/22**	**Fri 08/09/23**	**213 days**			
546	546	5.19.7.3.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sun 11/07/21	Mon 07/03/22	Sun 11/07/21	Mon 07/03/22	Mon 28/11/22	Tue 25/07/23	292 days	533	547	
547	547	5.19.7.3.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	Sun 25/12/22	Tue 07/02/23	Wed 26/07/23	Fri 08/09/23	44 days	546,570SS-65	585	
548	548	5.19.7.4	**Mixed Liquor Return Pumps, EQT008**	**577 days**	**Sun 11/07/21**	**Tue 07/02/23**	**Sun 11/07/21**	**Tue 07/02/23**	**Tue 13/12/22**	**Sat 23/09/23**	**228 days**			
549	549	5.19.7.4.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sun 11/07/21	Mon 07/03/22	Sun 11/07/21	Mon 07/03/22	Tue 13/12/22	Wed 09/08/23	292 days	533	550	
550	550	5.19.7.4.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	Sun 25/12/22	Tue 07/02/23	Thu 10/08/23	Sat 23/09/23	16 days	549,570SS-65	586	
551	551	5.19.7.5	**Sum Removal System, EQT021, EQT022**	**577 days**	**Sun 11/07/21**	**Tue 07/02/23**	**Sun 11/07/21**	**Tue 07/02/23**	**Thu 12/01/23**	**Mon 23/10/23**	**258 days**			
552	552	5.19.7.5.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sun 11/07/21	Mon 07/03/22	Sun 11/07/21	Mon 07/03/22	Thu 12/01/23	Fri 08/09/23	292 days	533	553	
553	553	5.19.7.5.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	Sun 25/12/22	Tue 07/02/23	Sat 09/09/23	Mon 23/10/23	46 days	552,570SS-65	587	
554	554	5.19.7.6	**Aeration Blowers, EQT039**	**577 days**	**Sun 11/07/21**	**Tue 07/02/23**	**Sun 11/07/21**	**Tue 07/02/23**	**Thu 12/01/23**	**Mon 23/10/23**	**258 days**			
555	555	5.19.7.6.1	Manufacturing and Factory Acceptance Test of Plant (to be witnesse	240 days	Sun 11/07/21	Mon 07/03/22	Sun 11/07/21	Mon 07/03/22	Thu 12/01/23	Fri 08/09/23	292 days	533	556	
556	556	5.19.7.6.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	Sun 25/12/22	Tue 07/02/23	Sat 09/09/23	Mon 23/10/23	173 days	555,570SS-65	588	
557	557	5.19.7.7	**Instrumentations, EQT035-2**	**577 days**	**Sun 11/07/21**	**Tue 07/02/23**	**Sun 11/07/21**	**Tue 07/02/23**	**Wed 28/12/22**	**Sun 08/10/23**	**243 days**			
558	558	5.19.7.7.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sun 11/07/21	Mon 07/03/22	Sun 11/07/21	Mon 07/03/22	Wed 28/12/22	Thu 24/08/23	292 days	533	559	
559	559	5.19.7.7.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	Sun 25/12/22	Tue 07/02/23	Fri 25/08/23	Sun 08/10/23	166 days	558,570SS-65	589	
560	560	5.19.7.8	**Stoplogs and Penstocks, EQT013**	**577 days**	**Sun 11/07/21**	**Tue 07/02/23**	**Sun 11/07/21**	**Tue 07/02/23**	**Wed 01/06/22**	**Sun 12/03/23**	**33 days**			
561	561	5.19.7.8.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Sun 11/07/21	Mon 07/03/22	Sun 11/07/21	Mon 07/03/22	Wed 01/06/22	Thu 26/01/23	292 days	533	562	
562	562	5.19.7.8.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	Sun 25/12/22	Tue 07/02/23	Fri 27/01/23	Sun 12/03/23	16 days	561,570SS-65	581	
563	563	5.19.7.9	**Pipework, Valves and Electric Actuators, EQT036, EQT042 (Rev. 11)**	**359 days**	**Mon 14/02/22**	**Tue 07/02/23**	**Mon 14/02/22**	**Tue 07/02/23**	**Sun 31/07/22**	**Thu 11/05/23**	**93 days**	56,63		
564	564	5.19.7.9.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Mon 14/02/22	Tue 11/10/22	Mon 14/02/22	Tue 11/10/22	Sun 31/07/22	Mon 27/03/23	74 days	533	565	
565	565	5.19.7.9.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	Sun 25/12/22	Tue 07/02/23	Tue 28/03/23	Thu 11/05/23	16 days	564,570SS-65	582	
566	566	5.19.7.10	**Lifting Appliances**	**740 days**	**Fri 29/01/21**	**Tue 07/02/23**	**Fri 29/01/21**	**Tue 07/02/23**	**Wed 07/09/22**	**Fri 19/05/23**	**101 days**			
567	567	5.19.7.10.1	Manufacturing and Factory Acceptance Test of Plant	210 days	Fri 29/01/21	Thu 26/08/21	Fri 29/01/21	Thu 26/08/21	Wed 07/09/22	Tue 04/04/23	485 days	537	568	
568	568	5.19.7.10.2	Shipping and Delivery of Plant to site	45 days	Sun 25/12/22	Tue 07/02/23	Sun 25/12/22	Tue 07/02/23	Wed 05/04/23	Fri 19/05/23	16 days	567,570SS-65	574	
569	569	5.19.8	**Site Installation Work**	**348 days**	**Thu 23/02/23**	**Mon 05/02/24**	**Thu 23/02/23**	**Mon 05/02/24**	**Thu 23/02/23**	**Mon 01/04/24**	**0 days**			
570	570	5.19.8.1	Tentative Civil Handover Date, Portion B-4, BR2A & 2B (Rev. 5)	1 day	Thu 23/02/23	Thu 23/02/23	Thu 23/02/23	Thu 23/02/23	Thu 23/02/23	Thu 23/02/23	0 days		574,580,591,599FS+90 ec	
571	571	5.19.8.2	Tentative Civil Handover Date, LV cables draw pits from MFB2 to BR2	1 day	Thu 01/06/23	Thu 01/06/23	Thu 01/06/23	Thu 01/06/23	Tue 07/11/23	Tue 07/11/23	30 days		594FF+30 days	
572	572	5.19.8.3	**Commencement of E&M Installation at Bioreactor No. 2A & 2B**	**347 days**	**Fri 24/02/23**	**Mon 05/02/24**	**Fri 24/02/23**	**Mon 05/02/24**	**Fri 24/02/23**	**Mon 01/04/24**	**0 days**	570		
573	573	5.19.8.3.1	Provision of Temporary Water Supply, Electricity Supply, Lighting, W	7 days	Fri 24/02/23	Thu 02/03/23	Fri 24/02/23	Thu 02/03/23	Fri 24/02/23	Thu 02/03/23	0 days	570		
574	574	5.19.8.3.2	**Installation of Lifting Appliances at BR 2A & 2B**	**67 days**	**Fri 24/02/23**	**Mon 01/05/23**	**Fri 24/02/23**	**Mon 01/05/23**	**Sat 20/05/23**	**Tue 25/07/23**	**85 days**	570,568		
575	575	5.19.8.3.2.1	Coping Level EOT Crane LA-03-01 SWL 5t	30 days	Fri 24/02/23	Sat 25/03/23	Fri 24/02/23	Sat 25/03/23	Sat 20/05/23	Sun 18/06/23	0 days		577,578,579	LA - A x 4~6 men
576	576	5.19.8.3.2.2	Coping Level EOT Crane LA-03-02 SWL 5t	30 days	Fri 24/02/23	Sat 25/03/23	Fri 24/02/23	Sat 25/03/23	Sat 20/05/23	Sun 18/06/23	0 days		577,578,579	LA - B x 4~6 men
577	577	5.19.8.3.2.3	Coping Level EOT Crane LA-03-03 SWL 5t	30 days	Sun 26/03/23	Mon 24/04/23	Sun 26/03/23	Mon 24/04/23	Mon 19/06/23	Tue 18/07/23	0 days	575,576	579	LA - A x 4~6 men
578	578	5.19.8.3.2.4	Coping Level Mobile A-frame LA-03-04 SWL 4t	7 days	Sun 26/03/23	Sat 01/04/23	Sun 26/03/23	Sat 01/04/23	Wed 12/07/23	Tue 18/07/23	23 days	575,576	579	LA - B x 4~6 men
579	579	5.19.8.3.2.5	T&C, Loading Test for Lifting Appliances at Bioreactor No. 2A & 2B	7 days	Tue 25/04/23	Mon 01/05/23	Tue 25/04/23	Mon 01/05/23	Wed 19/07/23	Tue 25/07/23	0 days	575,576,577	584	LA - B x 4~6 men
580	580	5.19.8.3.3	**Mechanical Installations for E&M Equip at BR 2A & 2B**	**270 days**	**Fri 24/02/23**	**Mon 20/11/23**	**Fri 24/02/23**	**Mon 20/11/23**	**Mon 13/03/23**	**Thu 07/12/23**	**10 days**	570	596	
581	581	5.19.8.3.3.1	Installation of penstocks and stoplogs (Penstocks 8nos, Stoplogs 8	90 days	Fri 24/02/23	Wed 24/05/23	Fri 24/02/23	Wed 24/05/23	Mon 13/03/23	Sat 10/06/23	0 days	562	590	ME - E x 4~6 men
582	582	5.19.8.3.3.2	Installation of pipework and valves, EQT036	150 days	Fri 24/02/23	Sun 23/07/23	Fri 24/02/23	Sun 23/07/23	Fri 12/05/23	Sun 08/10/23	0 days	565	589	ME - C x 4~6 men
583	583	5.19.8.3.3.3	Installation of pre-treatment fine screens (x4)	28 days	Fri 24/02/23	Thu 23/03/23	Fri 24/02/23	Thu 23/03/23	Sat 12/08/23	Fri 08/09/23	0 days	541	585	ME - A x 4~6 men
584	584	5.19.8.3.4	Installation of air diffusion system (x2), EQT017	90 days	Tue 02/05/23	Sun 30/07/23	Tue 02/05/23	Sun 30/07/23	Wed 26/07/23	Mon 23/10/23	0 days	579,544	588	ME - D x 2~4 men



ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
585	585	5.19.8.3.3.5	Installation of submersible mixers (x16), EQT020	90 days	Fri 24/03/23	Wed 21/06/23	Fri 24/03/23	Wed 21/06/23	Sat 09/09/23	Thu 07/12/23	162 days	583,547	596	ME - B x 4~6 men
586	586	5.19.8.3.3.6	Installation of mixed liquor return pumps (x6), EQT008	30 days	Fri 24/02/23	Sat 25/03/23	Fri 24/02/23	Sat 25/03/23	Sun 24/09/23	Mon 23/10/23	0 days	550	587	ME - A x 4~6 men
587	587	5.19.8.3.3.7	Installation of scum removal systems (x2), EQT022	45 days	Sun 26/03/23	Tue 09/05/23	Sun 26/03/23	Tue 09/05/23	Tue 24/10/23	Thu 07/12/23	205 days	586,553	596	ME - B x 4~6 men
588	588	5.19.8.3.3.8	Installation of aeration blowers (x4), EQT039	45 days	Mon 31/07/23	Wed 13/09/23	Mon 31/07/23	Wed 13/09/23	Tue 24/10/23	Thu 07/12/23	78 days	584,556	596	ME - D x 2~4 men
589	589	5.19.8.3.3.9	Installation of Instrumentations, EQT035-2	60 days	Mon 24/07/23	Thu 21/09/23	Mon 24/07/23	Thu 21/09/23	Mon 09/10/23	Thu 07/12/23	70 days	582,559	596	ME - D x 2~4 men
590	590	5.19.8.3.3.10	Site Acceptance Tests - mechanical aspects including alignment an	180 days	Thu 25/05/23	Mon 20/11/23	Thu 25/05/23	Mon 20/11/23	Sun 11/06/23	Thu 07/12/23	10 days	581	596	ME - D x 2~4 men
591	591	5.19.8.3.4	**Electrical Installations for E&M Equip at BR 2A & 2B**	280 days	Fri 24/02/23	Thu 30/11/23	Fri 24/02/23	Thu 30/11/23	Mon 27/03/23	Sat 06/01/24	0 days	570	596	
592	592	5.19.8.3.4.1	Installation of cable trays and cable containments	120 days	Fri 24/02/23	Fri 23/06/23	Fri 24/02/23	Fri 23/06/23	Mon 27/03/23	Mon 24/07/23	0 days	570	593	EE - A x 4~6 men
593	593	5.19.8.3.4.2	Cables laying and terminations	100 days	Sat 24/06/23	Sun 01/10/23	Sat 24/06/23	Sun 01/10/23	Tue 25/07/23	Wed 01/11/23	0 days	592	595,768	EE - C x 4~6 men
594	594	5.19.8.3.4.3	Energisation of LV Switchboards, BR2	1 day	Mon 31/07/23	Mon 31/07/23	Mon 31/07/23	Mon 31/07/23	Thu 07/12/23	Thu 07/12/23	122 days	571FF+30 d	596	LV - A x 4~6 men
595	595	5.19.8.3.4.4	Site Acceptance Tests - Electrical aspects including voltage and cur	60 days	Mon 02/10/23	Thu 30/11/23	Mon 02/10/23	Thu 30/11/23	Wed 08/11/23	Sat 06/01/24	32 days	593	355	LV - A x 4~6 men
596	596	5.19.8.3.5	**Site Acceptance Test for E&M Equip at BR 2A & 2B**	30 edays	Thu 30/11/23	Sat 30/12/23	Thu 30/11/23	Sat 30/12/23	Fri 08/12/23	Sun 07/01/24	0.63 edays	580,585,587	597	
597	597	5.19.8.3.6	**System Commissioning for E&M Equip at BR 2A & 2B**	30 days	Sun 31/12/23	Mon 29/01/24	Sun 31/12/23	Mon 29/01/24	Sun 07/01/24	Mon 05/02/24	0 days	596,770	598	
598	598	5.19.8.3.7	**Risk Allowances for Completion of Processing Plant at BR 2A & 2B**	7 edays	Mon 29/01/24	Mon 05/02/24	Mon 29/01/24	Mon 05/02/24	Tue 06/02/24	Tue 13/02/24	2.63 edays	597	1278	
599	599	5.19.8.3.8	**Building Services Installations for BR 2A & 2B**	195 days	Thu 25/05/23	Tue 05/12/23	Thu 25/05/23	Tue 05/12/23	Tue 06/06/23	Mon 01/04/24	12 days	570FS+90 e		
600	600	5.19.8.3.8.1	Lighting and Power Distribution System, BR2	150 days	Thu 25/05/23	Sat 21/10/23	Thu 25/05/23	Sat 21/10/23	Wed 20/09/23	Fri 16/02/24	0 days	535	605	BS - A x 4~6 men
601	601	5.19.8.3.8.2	Plumbing Installation, BR2	120 days	Thu 25/05/23	Thu 21/09/23	Thu 25/05/23	Thu 21/09/23	Tue 06/06/23	Tue 03/10/23	10 days	1249	1251,605	Pb - A x 4~6 men
602	602	5.19.8.3.8.3	CCTV Installation (7 indoor + 2 outdoor Cameras), BR2	60 days	Sat 24/06/23	Tue 22/08/23	Sat 24/06/23	Tue 22/08/23	Tue 19/12/23	Fri 16/02/24	20 days	570FS+120 d	605,1281	BS - B x 4~6 men
603	603	5.19.8.3.8.4	Fire Services Installation, BR2	120 days	Thu 25/05/23	Thu 21/09/23	Thu 25/05/23	Thu 21/09/23	Tue 13/06/23	Tue 10/10/23	15 days		1202,1214,1215,605	FS - B x 4~6 men
604	604	5.19.8.3.8.5	Lightning Protection System, BR2	60 days	Thu 25/05/23	Sun 23/07/23	Thu 25/05/23	Sun 23/07/23	Fri 02/02/24	Mon 01/04/24	253 days		499FF	BS - C x 2~4 men
605	605	5.19.8.3.8.6	Testing and Commissioning of Building Services Installations, BR2	45 days	Sun 22/10/23	Tue 05/12/23	Sun 22/10/23	Tue 05/12/23	Sat 17/02/24	Mon 01/04/24	118 days	600,601,602	499FF	BS - C x 2~4 men
606	606	5.20	**Membrane Facilities Building, Portion B-5 (PS 6B.2.4)**	1320 days	Fri 21/08/20	Mon 01/04/24	Fri 21/08/20	Mon 01/04/24	Fri 21/08/20	Mon 01/04/24	0 days			
607	607	5.20.1	Planned Key Date Completion Date - KD1A, MFB No. 2	0 days	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	0 days	653FF,654FF		
608	608	5.20.2	Planned Key Date Completion Date - KD1B, MFB No. 2	0 days	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days	655FF		
609	609	5.20.3	Planned Sectional Completion Date - Section 1, MFB No. 2	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	656FF,657FF		
610	610	5.20.4	Planned Sectional Completion Date - Section 2, MFB No. 2	0 days	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	0 days			
611	611	5.20.5	**Selection of Suppliers for major plant and materials for MFB**	224 days	Tue 01/09/20	Mon 12/04/21	Tue 01/09/20	Mon 12/04/21	Tue 01/09/20	Tue 15/06/21	64 days			
612	612	5.20.5.1	MFS - hollow fibre membrane modules (Marking Scheme Approach), ref. EQT023	150 days	Tue 01/09/20	Thu 28/01/21	Tue 01/09/20	Thu 28/01/21	Tue 01/09/20	Thu 28/01/21	0 days			
613	613	5.20.5.1.1	Submission for acceptance of purchasing package including proposed marking scheme	60 days	Tue 01/09/20	Fri 30/10/20	Tue 01/09/20	Fri 30/10/20	Tue 01/09/20	Fri 30/10/20	0 days		614	
614	614	5.20.5.1.2	Invitation of quotations for purchasing package	60 days	Sat 31/10/20	Tue 29/12/20	Sat 31/10/20	Tue 29/12/20	Sat 31/10/20	Tue 29/12/20	0 days	613	615	
615	615	5.20.5.1.3	Acceptance of conforming quotation (Completed)	30 days	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	0 days	614	656	
616	616	5.20.5.2	MFS - air scour blowers, C11, ref. EQT040	150 days	Tue 01/09/20	Thu 28/01/21	Tue 01/09/20	Thu 28/01/21	Tue 01/09/20	Thu 28/01/21	0 days			
617	617	5.20.5.2.1	Submission for acceptance of purchasing package	60 days	Tue 01/09/20	Fri 30/10/20	Tue 01/09/20	Fri 30/10/20	Tue 01/09/20	Fri 30/10/20	0 days		618	
618	618	5.20.5.2.2	Invitation of quotations for purchasing package	60 days	Sat 31/10/20	Tue 29/12/20	Sat 31/10/20	Tue 29/12/20	Sat 31/10/20	Tue 29/12/20	0 days	617	619	
619	619	5.20.5.2.3	Acceptance of conforming quotation (Completed)	30 days	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	0 days	618	658	
620	620	5.20.5.3	MFS - permeate pumps, C11, ref. EQT024	180 days	Tue 01/09/20	Sat 27/02/21	Tue 01/09/20	Sat 27/02/21	Tue 01/09/20	Sat 27/02/21	0 days			
621	621	5.20.5.3.1	Submission for acceptance of purchasing package	90 days	Tue 01/09/20	Sun 29/11/20	Tue 01/09/20	Sun 29/11/20	Tue 01/09/20	Sun 29/11/20	0 days		622	
622	622	5.20.5.3.2	Invitation of quotations for purchasing package	60 days	Mon 30/11/20	Thu 28/01/21	Mon 30/11/20	Thu 28/01/21	Mon 30/11/20	Thu 28/01/21	0 days	621	623	
623	623	5.20.5.3.3	Acceptance of conforming quotation (Completed)	30 days	Fri 29/01/21	Sat 27/02/21	Fri 29/01/21	Sat 27/02/21	Fri 29/01/21	Sat 27/02/21	0 days	622	656	
624	624	5.20.5.4	MFS - compressed air system, C11, ref. EQT029	120 days	Tue 15/09/20	Tue 12/01/21	Tue 15/09/20	Tue 12/01/21	Tue 15/09/20	Tue 12/01/21	0 days			
625	625	5.20.5.4.1	Submission for acceptance of purchasing package	60 days	Tue 15/09/20	Fri 13/11/20	Tue 15/09/20	Fri 13/11/20	Tue 15/09/20	Fri 13/11/20	0 days		626	
626	626	5.20.5.4.2	Invitation of quotations for purchasing package	30 days	Sat 14/11/20	Sun 13/12/20	Sat 14/11/20	Sun 13/12/20	Sat 14/11/20	Sun 13/12/20	0 days	625	627	
627	627	5.20.5.4.3	Acceptance of conforming quotation (Completed)	30 days	Mon 14/12/20	Tue 12/01/21	Mon 14/12/20	Tue 12/01/21	Mon 14/12/20	Tue 12/01/21	0 days	626	658	
628	628	5.20.5.5	MFS - chemical storage tanks, C11, ref. EQT025	120 days	Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Thu 28/01/21	0 days			
629	629	5.20.5.5.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	0 days		630	
630	630	5.20.5.5.2	Invitation of quotations for purchasing package	30 days	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	0 days	629	631	
631	631	5.20.5.5.3	Acceptance of conforming quotation (Completed)	30 days	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	0 days	630	658	
632	632	5.20.5.6	MFS - chemical dosing pumps, C11, ref. EQT026	120 days	Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Thu 28/01/21	0 days			
633	633	5.20.5.6.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	0 days 2,30		634	
634	634	5.20.5.6.2	Invitation of quotations for purchasing package	30 days	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	0 days	633	635	
635	635	5.20.5.6.3	Acceptance of conforming quotation (Completed)	30 days	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	0 days	634	658	
636	636	5.20.5.7	MFS - return activated sludge pumps (Marking Scheme Approach), ref. EQT010	180 days	Thu 01/10/20	Mon 29/03/21	Thu 01/10/20	Mon 29/03/21	Thu 01/10/20	Mon 29/03/21	0 days			
637	637	5.20.5.7.1	Submission for acceptance of purchasing package	90 days	Thu 01/10/20	Tue 29/12/20	Thu 01/10/20	Tue 29/12/20	Thu 01/10/20	Tue 29/12/20	0 days		638	
638	638	5.20.5.7.2	Invitation of quotations for purchasing package	60 days	Wed 30/12/20	Sat 27/02/21	Wed 30/12/20	Sat 27/02/21	Wed 30/12/20	Sat 27/02/21	0 days	637	639	
639	639	5.20.5.7.3	Acceptance of conforming quotation (Completed)	30 days	Sun 28/02/21	Mon 29/03/21	Sun 28/02/21	Mon 29/03/21	Sun 28/02/21	Mon 29/03/21	0 days	638	656	
640	640	5.20.5.8	MFS - membrane tank drain pumps, C11, ref. EQT009	180 days	Tue 15/09/20	Sat 13/03/21	Tue 15/09/20	Sat 13/03/21	Tue 15/09/20	Sat 13/03/21	0 days			
641	641	5.20.5.8.1	Submission for acceptance of purchasing package	90 days	Tue 15/09/20	Sun 13/12/20	Tue 15/09/20	Sun 13/12/20	Tue 15/09/20	Sun 13/12/20	0 days		642	

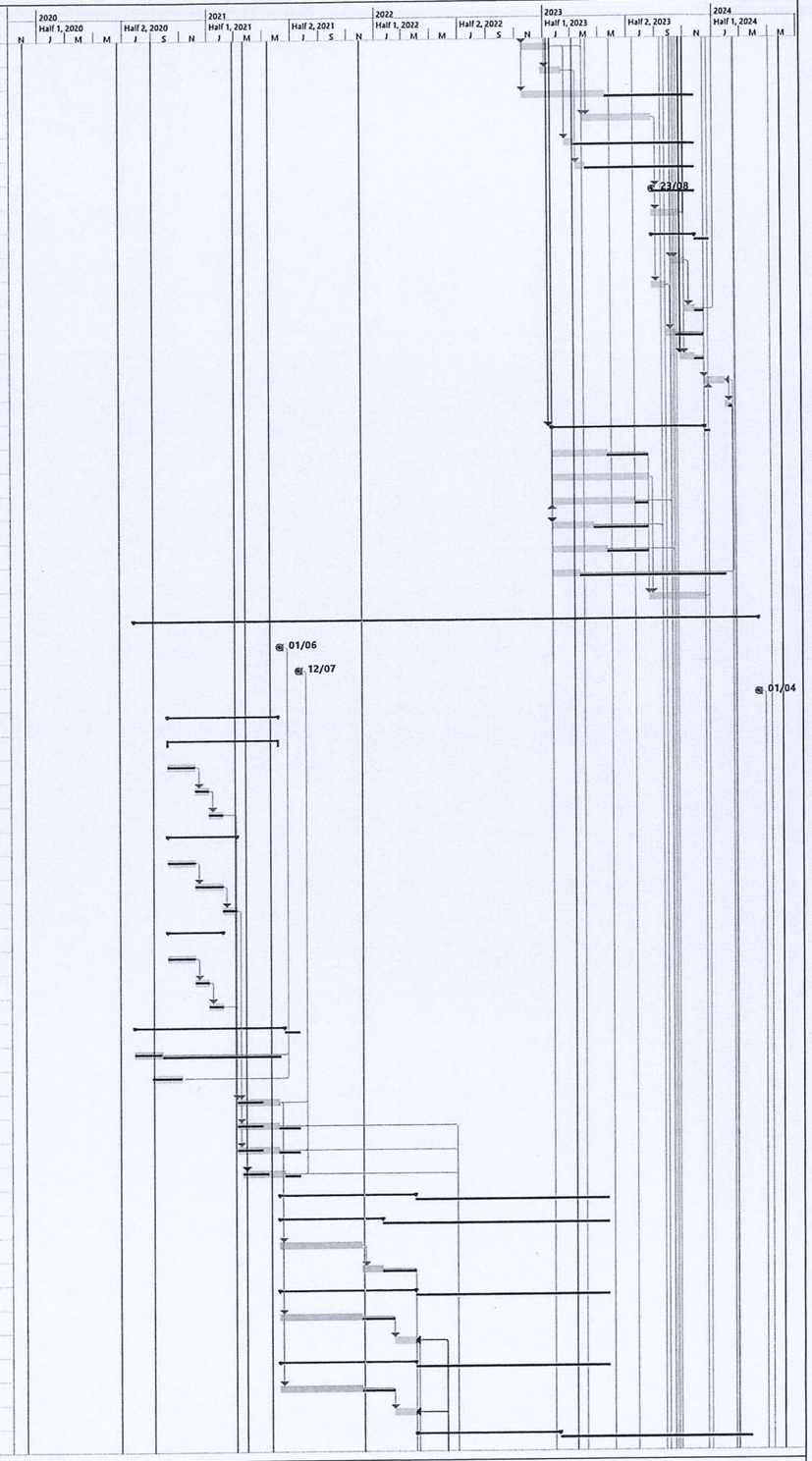


ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
642	642	5.20.5.8.2	Invitation of quotations for purchasing package	60 days	Mon 14/12/20	Thu 11/02/21	Mon 14/12/20	Thu 11/02/21	Mon 14/12/20	Thu 11/02/21	0 days	641	643	
643	643	5.20.5.8.3	Acceptance of conforming quotation (Completed)	30 days	Fri 12/02/21	Sat 13/03/21	Fri 12/02/21	Sat 13/03/21	Fri 12/02/21	Sat 13/03/21	0 days	642	656	
644	644	5.20.5.9	**Plant Service Water System - booster pumps, C11, ref. EQT030**	180 days	Thu 15/10/20	Mon 12/04/21	Thu 15/10/20	Mon 12/04/21	Thu 15/10/20	Mon 12/04/21	0 days			
645	645	5.20.5.9.1	Submission for acceptance of purchasing package	90 days	Thu 15/10/20	Tue 12/01/21	Thu 15/10/20	Tue 12/01/21	Thu 15/10/20	Tue 12/01/21	0 days		646	
646	646	5.20.5.9.2	Invitation of quotations for purchasing package	60 days	Wed 13/01/21	Sat 13/03/21	Wed 13/01/21	Sat 13/03/21	Wed 13/01/21	Sat 13/03/21	0 days	645	647	
647	647	5.20.5.9.3	Acceptance of conforming quotation (Completed)	30 days	Sun 14/03/21	Mon 12/04/21	Sun 14/03/21	Mon 12/04/21	Sun 14/03/21	Mon 12/04/21	0 days	646	656	
648	648	5.20.5.10	**Plant Service Water System - hydro-pneumatic pressure tanks, C11, ref. EQT030**	120 days	Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Tue 15/06/21	138 days			
649	649	5.20.5.10.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Fri 16/04/21	0 days		650	
650	650	5.20.5.10.2	Invitation of quotations for purchasing package	30 days	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	Sat 17/04/21	Sun 16/05/21	0 days	649	651	
651	651	5.20.5.10.3	Acceptance of conforming quotation	30 days	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	Mon 17/05/21	Tue 15/06/21	74 days	650	656	
652	652	5.20.6	**Design Submissions for MFB No. 2**	572 days	Fri 21/08/20	Tue 15/03/22	Fri 21/08/20	Tue 15/03/22	Fri 21/08/20	Tue 15/03/22	0 days			
653	653	5.20.6.1	Electrical schematic drawings for MFB No. 2	60 days	Fri 21/08/20	Mon 19/10/20	Fri 21/08/20	Mon 19/10/20	Fri 21/08/20	Mon 19/10/20	0 days		607FF	
654	654	5.20.6.2	CDS080-4 - Civil and dimensional requirements drawigns for MFB no. 2 up to +	30 days	Tue 01/09/20	Wed 30/09/20	Tue 01/09/20	Wed 30/09/20	Tue 01/09/20	Wed 30/09/20	0 days		607FF	
655	655	5.20.6.3	CDS081-4 - Civil and dimensional requirements drawings for MFB No. 2	210 days	Fri 28/08/20	Thu 25/03/21	Fri 28/08/20	Thu 25/03/21	Fri 28/08/20	Thu 25/03/21	0 days		608FF	
656	656	5.20.6.4	CDS005 - Detailed Design for Membrane Filtration System, Pumps and	80 edays	Mon 12/04/21	Thu 01/07/21	Mon 12/04/21	Thu 01/07/21	Mon 12/04/21	Mon 12/07/21	0.63 edays	615,623,635	665,669,672,675,684,687	
657	657	5.20.6.5	CDS024 - Detailed Design for Electrical Installations for MFB No. 2	159.38 edays	Thu 07/10/21	Tue 15/03/22	Thu 07/10/21	Tue 15/03/22	Thu 07/10/21	Tue 15/03/22	0 edays	75,85,81,89,	76,704,710,609FF	
658	658	5.20.6.6	CDS008 - Detailed Design for Membrane Filtration System, Air Blowers,	100 edays	Mon 01/03/21	Wed 09/06/21	Mon 01/03/21	Wed 09/06/21	Mon 01/03/21	Mon 12/07/21	0.63 edays	619,627,631	678,681,609FF	
659	659	5.20.6.7	CDS034-4 - Detailed Design for Electrical Installations BS at MFB No. 2	100 edays	Fri 12/03/21	Sun 20/06/21	Fri 12/03/21	Sun 20/06/21	Fri 12/03/21	Mon 12/07/21	22.38 edays	140	775,609FF	
660	660	5.20.6.8	CDS025-4 - Detailed Design for LV Switchboards for Membrane Filtratic	60 edays	Mon 03/05/21	Fri 02/07/21	Mon 03/05/21	Fri 02/07/21	Mon 03/05/21	Mon 12/07/21	0.63 edays	71	696,609FF	
661	661	5.20.6.9	CDS026-2 - Detailed Design for HV Switchboards for MFB No. 2	60 edays	Sun 18/04/21	Thu 17/06/21	Sun 18/04/21	Thu 17/06/21	Sun 18/04/21	Mon 12/07/21	0.63 edays	67	609FF,700	
662	662	5.20.6.10	CDS050-4 - Detailed Design for Lifting Appliances - MFB No. 2	150 edays	Thu 15/10/20	Sun 14/03/21	Thu 15/10/20	Sun 14/03/21	Thu 15/10/20	Sun 14/03/21	0 edays	120	690,609FF	
663	663	5.20.7	**Manufacturing and Delivery of Plant & Materials**	652 days	Sun 14/03/21	Sun 25/12/22	Sun 14/03/21	Sun 25/12/22	Fri 02/07/21	Thu 24/08/23	242 days			
664	664	5.20.7.1	**Hollow Fibre Membrane Modules, EQT023**	385 days	Fri 02/07/21	Thu 21/07/22	Fri 02/07/21	Thu 21/07/22	Fri 02/07/21	Sat 28/01/23	191 days			
665	665	5.20.7.1.1	MFS - Manufacturing of Plant	300 days	Fri 02/07/21	Wed 27/04/22	Fri 02/07/21	Wed 27/04/22	Fri 02/07/21	Fri 04/11/22	0 days	656	666	
666	666	5.20.7.1.2	MFS - Factory Acceptance Test of Plant (to be witnessed by PM)	40 days	Thu 28/04/22	Mon 06/06/22	Thu 28/04/22	Mon 06/06/22	Sat 05/11/22	Wed 14/12/22	0 days	665	667	
667	667	5.20.7.1.3	MFS - Shipping and Delivery of Plant to site	45 days	Tue 07/06/22	Thu 21/07/22	Tue 07/06/22	Thu 21/07/22	Thu 15/12/22	Sat 28/01/23	0 days	666	725	
668	668	5.20.7.2	**Air Scour Blowers, EQT040**	396 days	Fri 02/07/21	Mon 01/08/22	Fri 02/07/21	Mon 01/08/22	Tue 17/05/22	Sat 25/02/23	208 days			
669	669	5.20.7.2.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Fri 02/07/21	Sat 26/02/22	Fri 02/07/21	Sat 26/02/22	Tue 17/05/22	Wed 11/01/23	111 days	656	670	
670	670	5.20.7.2.2	Shipping and Delivery of Plant to site	45 days	Sat 18/06/22	Mon 01/08/22	Sat 18/06/22	Mon 01/08/22	Thu 12/01/23	Sat 25/02/23	0 days	669,737SS-6726		
671	671	5.20.7.3	**Permeate Pump, EQT024**	285 days	Fri 02/07/21	Tue 12/04/22	Fri 02/07/21	Tue 12/04/22	Mon 15/08/22	Fri 26/05/23	409 days			
672	672	5.20.7.3.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Fri 02/07/21	Sat 26/02/22	Fri 02/07/21	Sat 26/02/22	Mon 15/08/22	Tue 11/04/23	0 days	656	673	
673	673	5.20.7.3.2	Shipping and Delivery of Plant to site	45 days	Sun 27/02/22	Tue 12/04/22	Sun 27/02/22	Tue 12/04/22	Wed 12/04/23	Fri 26/05/23	201 days	672	727	
674	674	5.20.7.4	**Compressed Air System, EQT029**	396 days	Fri 02/07/21	Mon 01/08/22	Fri 02/07/21	Mon 01/08/22	Thu 16/06/22	Sat 25/02/23	208 days			
675	675	5.20.7.4.1	Manufacturing and Factory Acceptance Test of Plant	210 days	Fri 02/07/21	Thu 27/01/22	Fri 02/07/21	Thu 27/01/22	Thu 16/06/22	Wed 11/01/23	141 days	656	676	
676	676	5.20.7.4.2	Shipping and Delivery of Plant to site	45 days	Sat 18/06/22	Mon 01/08/22	Sat 18/06/22	Mon 01/08/22	Thu 12/01/23	Sat 25/02/23	0 days	675,737SS-6726		
677	677	5.20.7.5	**Chemical Storage Tanks, EQT025**	225 days	Thu 10/06/21	Thu 20/01/22	Thu 10/06/21	Thu 20/01/22	Mon 18/07/22	Mon 27/02/23	403 days			
678	678	5.20.7.5.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Thu 10/06/21	Mon 06/12/21	Thu 10/06/21	Mon 06/12/21	Mon 18/07/22	Fri 13/01/23	0 days	658	679	
679	679	5.20.7.5.2	Shipping and Delivery of Plant to site	45 days	Tue 07/12/21	Thu 20/01/22	Tue 07/12/21	Thu 20/01/22	Sat 14/01/23	Mon 27/02/23	104 days	678	731	
680	680	5.20.7.6	**Chemical Dosing Pumps, EQT026**	225 days	Thu 10/06/21	Thu 20/01/22	Thu 10/06/21	Thu 20/01/22	Mon 18/07/22	Mon 27/02/23	403 days			
681	681	5.20.7.6.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Thu 10/06/21	Mon 06/12/21	Thu 10/06/21	Mon 06/12/21	Mon 18/07/22	Fri 13/01/23	0 days	658	682	
682	682	5.20.7.6.2	Shipping and Delivery of Plant to site	45 days	Tue 07/12/21	Thu 20/01/22	Tue 07/12/21	Thu 20/01/22	Sat 14/01/23	Mon 27/02/23	104 days	681	732	
683	683	5.20.7.7	**Stoplogs and Penstocks, EQT013**	396 days	Fri 02/07/21	Mon 01/08/22	Fri 02/07/21	Mon 01/08/22	Tue 17/05/22	Sat 25/02/23	208 days			
684	684	5.20.7.7.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Fri 02/07/21	Sat 26/02/22	Fri 02/07/21	Sat 26/02/22	Tue 17/05/22	Wed 11/01/23	111 days	656	685	
685	685	5.20.7.7.2	Shipping and Delivery of Plant to site	45 days	Sat 18/06/22	Mon 01/08/22	Sat 18/06/22	Mon 01/08/22	Thu 12/01/23	Sat 25/02/23	0 days	684,737SS-6724		
686	686	5.20.7.8	**Pipework, Valves and Electric Actuators, EQT036 (Rev. 11)**	285 days	Mon 14/02/22	Fri 25/11/22	Mon 14/02/22	Fri 25/11/22	Sun 13/11/22	Thu 24/08/23	272 days	56,63		
687	687	5.20.7.8.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Mon 14/02/22	Tue 11/10/22	Mon 14/02/22	Tue 11/10/22	Sun 13/11/22	Mon 10/07/23	0 days	656	688	
688	688	5.20.7.8.2	Shipping and Delivery of Plant to site	45 days	Wed 12/10/22	Fri 25/11/22	Wed 12/10/22	Fri 25/11/22	Tue 11/07/23	Thu 24/08/23	64 days	687	730	
689	689	5.20.7.9	**Lifting Appliances**	356 days	Sun 14/03/21	Fri 04/03/22	Sun 14/03/21	Fri 04/03/22	Sat 15/01/22	Mon 26/09/22	206 days			
690	690	5.20.7.9.1	Manufacturing and Factory Acceptance Test of Plant	210 days	Sun 14/03/21	Sat 09/10/21	Sun 14/03/21	Sat 09/10/21	Sat 15/01/22	Fri 12/08/22	101 days	662	691	
691	691	5.20.7.9.2	Shipping and Delivery of Plant to site	45 days	Wed 19/01/22	Fri 04/03/22	Wed 19/01/22	Fri 04/03/22	Sat 13/08/22	Mon 26/09/22	16 days	690,714SS-6717,740		
692	692	5.20.7.10	**LV Switchboards**	395 days	Sat 03/07/21	Mon 01/08/22	Sat 03/07/21	Mon 01/08/22	Mon 17/01/22	Thu 26/01/23	178 days			
693	693	5.20.7.10.1	BR - Manufacturing of Plant	240 days	Sat 03/07/21	Sun 27/02/22	Sat 03/07/21	Sun 27/02/22	Mon 17/01/22	Tue 13/09/22	0 days	536	694	
694	694	5.20.7.10.2	BR - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days	Mon 28/02/22	Sat 28/05/22	Mon 28/02/22	Sat 28/05/22	Wed 14/09/22	Mon 12/12/22	0 days	693	695	
695	695	5.20.7.10.3	BR - Shipping and Delivery of Plant to site	45 days	Sun 29/05/22	Tue 12/07/22	Sun 29/05/22	Tue 12/07/22	Tue 13/12/22	Thu 26/01/23	126 days	694	755	
696	696	5.20.7.10.4	MFS - Manufacturing of Plant	240 days	Sat 03/07/21	Sun 27/02/22	Sat 03/07/21	Sun 27/02/22	Mon 17/01/22	Tue 13/09/22	0 days	660	697	
697	697	5.20.7.10.5	MFS - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days	Mon 28/02/22	Sat 28/05/22	Mon 28/02/22	Sat 28/05/22	Wed 14/09/22	Mon 12/12/22	20 days	696	698	
698	698	5.20.7.10.6	MFS - Shipping and Delivery of Plant to site	45 days	Sat 18/06/22	Mon 01/08/22	Sat 18/06/22	Mon 01/08/22	Tue 13/12/22	Thu 26/01/23	106 days	697,737SS-6756		
699	699	5.20.7.11	**HV Switchboards, EQT031**	410 days	Fri 18/06/21	Mon 01/08/22	Fri 18/06/21	Mon 01/08/22	Sun 17/04/22	Sat 25/02/23	208 days			

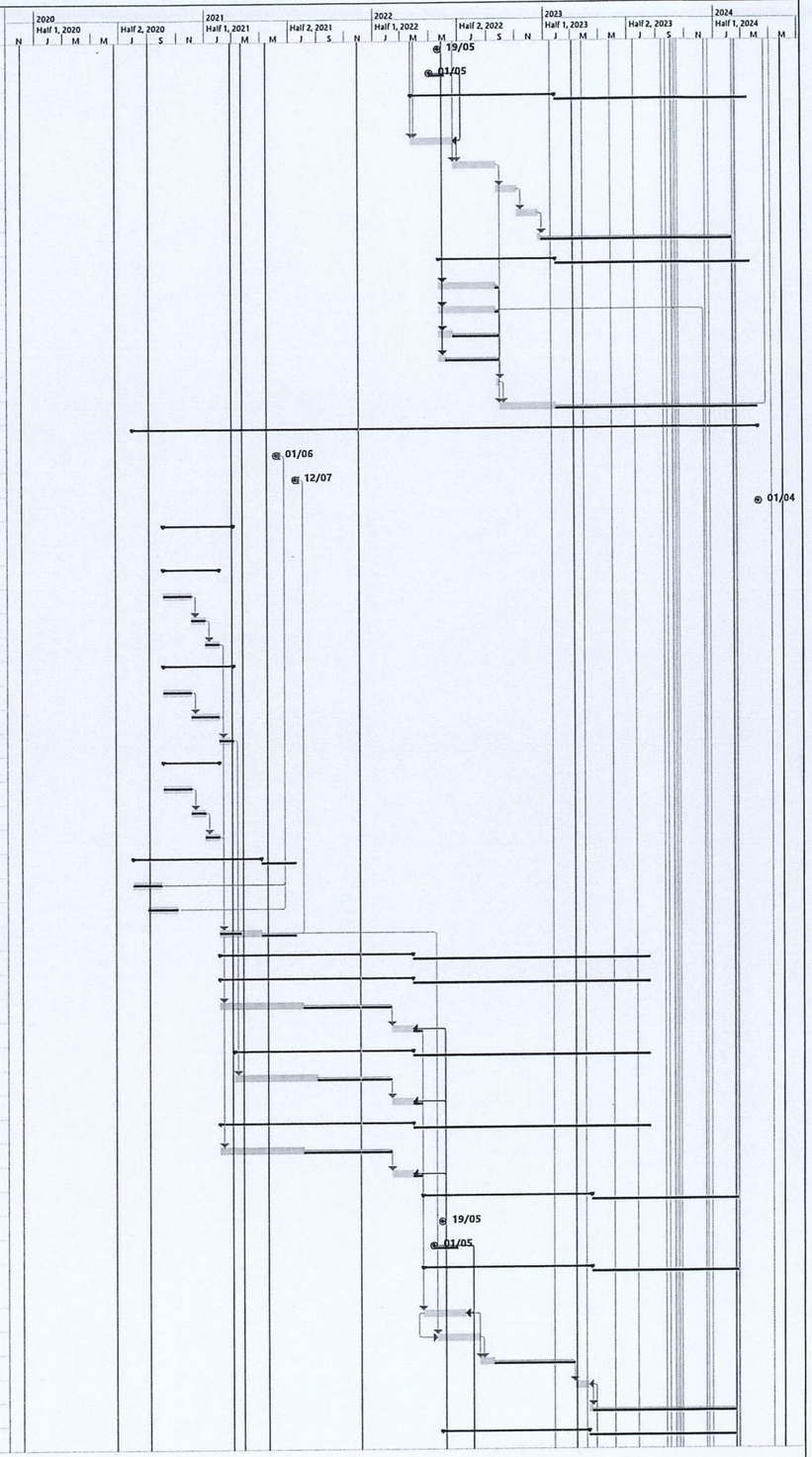


ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
700	700	5.20.7.11.1	MFS - Manufacturing of Plant	180 days	Fri 18/06/21	Tue 14/12/21	Fri 18/06/21	Tue 14/12/21	Sun 17/04/22	Thu 13/10/22	0 days	661	701	
701	701	5.20.7.11.2	MFS - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days	Wed 15/12/21	Mon 14/03/22	Wed 15/12/21	Mon 14/03/22	Fri 14/10/22	Wed 11/01/23	95 days	700	702	
702	702	5.20.7.11.3	MFS - Shipping and Delivery of Plant to site	45 days	Sat 18/06/22	Mon 01/08/22	Sat 18/06/22	Mon 01/08/22	Thu 12/01/23	Sat 25/02/23	106 days	701,737SS-6	759	
703	703	5.20.7.12	11kV/380V Stepdown Power Transformers, EQT032	285 days	Wed 16/03/22	Sun 25/12/22	Wed 16/03/22	Sun 25/12/22	Mon 07/11/22	Fri 18/08/23	236 days			
704	704	5.20.7.12.1	MFS - Manufacturing and Factory Acceptance Test of Plant	240 days	Wed 16/03/22	Thu 10/11/22	Wed 16/03/22	Thu 10/11/22	Mon 07/11/22	Tue 04/07/23	0 days	657	705	
705	705	5.20.7.12.2	MFS - Shipping and Delivery of Plant to site	45 days	Fri 11/11/22	Sun 25/12/22	Fri 11/11/22	Sun 25/12/22	Wed 05/07/23	Fri 18/08/23	0 days	704	760	
706	706	5.20.7.13	PLC System	285 days	Wed 16/03/22	Sun 25/12/22	Wed 16/03/22	Sun 25/12/22	Sun 17/04/22	Thu 24/08/23	32 days			
707	707	5.20.7.13.1	Manufacturing of Plant, PLC for BR2A &B	210 days	Wed 16/03/22	Tue 11/10/22	Wed 16/03/22	Tue 11/10/22	Sun 17/04/22	Sat 12/11/22	0 days	534	708	
708	708	5.20.7.13.2	Factory Acceptance Test of Plant, PLC for BR2A &B (To be witnessed	30 days	Wed 12/10/22	Thu 10/11/22	Wed 12/10/22	Thu 10/11/22	Sun 13/11/22	Mon 12/12/22	0 days	707	709	
709	709	5.20.7.13.3	Shipping and Delivery of Plant to site	45 days	Fri 11/11/22	Sun 25/12/22	Fri 11/11/22	Sun 25/12/22	Tue 13/12/22	Thu 26/01/23	0 days	708	757	
710	710	5.20.7.13.4	Manufacturing of Plant, PLC for MFB2	210 days	Wed 16/03/22	Tue 11/10/22	Wed 16/03/22	Tue 11/10/22	Sun 13/11/22	Sat 10/06/23	0 days	657	711	
711	711	5.20.7.13.5	Factory Acceptance Test of Plant, PLC for MFB2 (To be witnessed by	30 days	Wed 12/10/22	Thu 10/11/22	Wed 12/10/22	Thu 10/11/22	Sun 11/06/23	Mon 10/07/23	0 days	710	712	
712	712	5.20.7.13.6	Shipping and Delivery of Plant to site	45 days	Fri 11/11/22	Sun 25/12/22	Fri 11/11/22	Sun 25/12/22	Tue 11/07/23	Thu 24/08/23	0 days	711	758	
713	713	5.20.8	Site Installation Work	683 days	Sun 20/03/22	Wed 31/01/24	Sun 20/03/22	Wed 31/01/24	Sun 20/03/22	Tue 13/02/24	0 days			
714	714	5.20.8.1	Tentative Civil Handover Date, Portion B-5A, MFB No. 2 below 1st floor	1 day	Sun 20/03/22	Sun 20/03/22	Sun 20/03/22	Sun 20/03/22	Sun 20/03/22	Sun 20/03/22	0 days		717,723FS+45 edays,716,	
715	715	5.20.8.2	Commencement of E&M Installation at MFB No. 2 Lower Part	404 days	Mon 21/03/22	Fri 28/04/23	Mon 21/03/22	Fri 28/04/23	Mon 21/03/22	Wed 22/11/23	0 days	714		
716	716	5.20.8.2.1	Provision of Temporary Water Supply, Electricity Supply, Lighting, W	7 days	Mon 21/03/22	Sun 27/03/22	Mon 21/03/22	Sun 27/03/22	Mon 21/03/22	Sun 27/03/22	0 days	714		
717	717	5.20.8.2.2	Installation of Lifting Appliances at MFB No. 2	66 days	Mon 21/03/22	Wed 25/05/22	Mon 21/03/22	Wed 25/05/22	Thu 24/11/22	Sat 28/01/23	248 days	714,691		
718	718	5.20.8.2.2.1	B2 EOT Crane LA-04-01 SWL 5t	45 days	Mon 21/03/22	Wed 04/05/22	Mon 21/03/22	Wed 04/05/22	Thu 24/11/22	Sat 07/01/23	0 days		720,721,722	
719	719	5.20.8.2.2.2	B2 EOT Crane LA-04-02 SWL 5t	30 days	Mon 21/03/22	Tue 19/04/22	Mon 21/03/22	Tue 19/04/22	Fri 09/12/22	Sat 07/01/23	15 days		720,721,722	
720	720	5.20.8.2.2.3	B2 MR LA-04-03 SWL 5t	14 days	Thu 05/05/22	Wed 18/05/22	Thu 05/05/22	Wed 18/05/22	Sun 08/01/23	Sat 21/01/23	0 days	718,719	722	
721	721	5.20.8.2.2.4	B1 MR LA-04-04 SWL 3t	14 days	Thu 05/05/22	Wed 18/05/22	Thu 05/05/22	Wed 18/05/22	Sun 08/01/23	Sat 21/01/23	0 days	718,719	722	
722	722	5.20.8.2.2.5	T&C, Loading Test for Lifting Appliances	7 days	Thu 19/05/22	Wed 25/05/22	Thu 19/05/22	Wed 25/05/22	Sun 22/01/23	Sat 28/01/23	57 days	718,719,72C	725	
723	723	5.20.8.2.3	Mechanical Installations for E&M Equip. at MFB No. 2 Lower Part	359 days	Thu 05/05/22	Fri 28/04/23	Thu 05/05/22	Fri 28/04/23	Sun 29/01/23	Wed 22/11/23	0 days	714FS+45 e	735SS	
724	724	5.20.8.2.3.1	Installation of penstocks and stoplogs (Penstocks 18nos, Stoplogs	90 days	Tue 02/08/22	Sun 30/10/22	Tue 02/08/22	Sun 30/10/22	Sun 26/02/23	Fri 26/05/23	0 days	685	734	ME - E x 4~6 men
725	725	5.20.8.2.3.2	Installation of hollow fibre membrane modules (x9), EQT023	90 days	Fri 22/07/22	Wed 19/10/22	Fri 22/07/22	Wed 19/10/22	Sun 29/01/23	Fri 28/04/23	191 days	667,722		ME - A x 4~6 men
726	726	5.20.8.2.3.3	Installation of air scour blowers (x3), EQT040	90 days	Tue 02/08/22	Sun 30/10/22	Tue 02/08/22	Sun 30/10/22	Sun 26/02/23	Fri 26/05/23	0 days	670,676	730,727,728	ME - B x 4~6 men
727	727	5.20.8.2.3.4	Installation of permeate pumps (x10), EQT024	90 days	Mon 31/10/22	Sat 28/01/23	Mon 31/10/22	Sat 28/01/23	Sat 27/05/23	Thu 24/08/23	0 days	726,673	730	ME - A x 4~6 men
728	728	5.20.8.2.3.5	Installation of return activated sludge pumps (x5), EQT010	90 days	Mon 31/10/22	Sat 28/01/23	Mon 31/10/22	Sat 28/01/23	Sat 27/05/23	Thu 24/08/23	0 days	726	730	ME - B x 4~6 men
729	729	5.20.8.2.3.6	Installation of membrane tank drain pumps (x2), EQT009	45 days	Thu 05/05/22	Sat 18/06/22	Thu 05/05/22	Sat 18/06/22	Tue 11/07/23	Thu 24/08/23	224 days		730	ME - C x 4~6 men
730	730	5.20.8.2.3.7	Installation of pipework and valves, EQT036	90 days	Sun 29/01/23	Fri 28/04/23	Sun 29/01/23	Fri 28/04/23	Fri 25/08/23	Wed 22/11/23	0 days	726,727,72E	734FF	ME - C x 4~6 men
731	731	5.20.8.2.3.8	Installation of chemical storage tank, EQT025	60 days	Thu 05/05/22	Sun 03/07/22	Thu 05/05/22	Sun 03/07/22	Tue 28/02/23	Fri 28/04/23	299 days	679		ME - D x 2~4 men
732	732	5.20.8.2.3.9	Installation of chemical dosing pumps, EQT026	60 days	Thu 05/05/22	Sun 03/07/22	Thu 05/05/22	Sun 03/07/22	Tue 28/02/23	Fri 28/04/23	299 days	682		ME - D x 2~4 men
733	733	5.20.8.2.3.10	Installation of plant service water system	90 days	Thu 05/05/22	Tue 02/08/22	Thu 05/05/22	Tue 02/08/22	Sun 29/01/23	Fri 28/04/23	269 days			ME - C x 4~6 men
734	734	5.20.8.2.3.11	Site Acceptance Tests - mechanical aspects including alignment an	180 days	Mon 31/10/22	Fri 28/04/23	Mon 31/10/22	Fri 28/04/23	Sat 27/05/23	Wed 22/11/23	176 days	724,730FF	772	ME - D x 2~4 men
735	735	5.20.8.2.4	Electrical Installations for E&M Equip. at MFB No. 2 Lower Part	150 days	Thu 05/05/22	Sat 01/10/22	Thu 05/05/22	Sat 01/10/22	Wed 28/12/22	Fri 26/05/23	237 days	723SS		
736	736	5.20.8.2.4.1	Installation of cable trays and cable containments	150 days	Thu 05/05/22	Sat 01/10/22	Thu 05/05/22	Sat 01/10/22	Wed 28/12/22	Fri 26/05/23	45 days		761	
737	737	5.20.8.3	Tentative Civil Handover Date, Portion B-5B, MFB No. 2 remaining port	1 day	Wed 17/08/22	Wed 17/08/22	Wed 17/08/22	Wed 17/08/22	Wed 17/08/22	Wed 17/08/22	0 days		740,749FS+45 edays,775I	
738	738	5.20.8.4	Commencement of E&M Installation at MFB No. 2 Upper Part	532 days	Thu 18/08/22	Wed 31/01/24	Thu 18/08/22	Wed 31/01/24	Thu 18/08/22	Tue 13/02/24	0 days	737		
739	739	5.20.8.4.1	Provision of Temporary Water Supply, Electricity Supply, Lighting, W	7 days	Thu 18/08/22	Wed 24/08/22	Thu 18/08/22	Wed 24/08/22	Thu 18/08/22	Wed 24/08/22	0 days	737		
740	740	5.20.8.4.2	Installation of Lifting Appliances at MFB No. 2	142 days	Thu 18/08/22	Fri 06/01/23	Thu 18/08/22	Fri 06/01/23	Tue 27/09/22	Wed 15/02/23	40 days	737,691		
741	741	5.20.8.4.2.1	GF EOT Crane LA-04-05 SWL 5t	45 days	Thu 18/08/22	Sat 01/10/22	Thu 18/08/22	Sat 01/10/22	Tue 27/09/22	Thu 10/11/22	0 days		743,744,748	LA - A x 4~6 men
742	742	5.20.8.4.2.2	GF Gantry Crane LA-04-06 SWL 6t	45 days	Thu 18/08/22	Sat 01/10/22	Thu 18/08/22	Sat 01/10/22	Tue 27/09/22	Thu 10/11/22	0 days		743,744,748	LA - B x 4~6 men
743	743	5.20.8.4.2.3	1F EOT Crane LA-04-07 SWL 15t	45 days	Sun 02/10/22	Tue 15/11/22	Sun 02/10/22	Tue 15/11/22	Fri 11/11/22	Sun 25/12/22	0 days	741,742	745,746,747,748	LA - A x 4~6 men
744	744	5.20.8.4.2.4	1F EOT Crane LA-04-08 SWL 15t	45 days	Sun 02/10/22	Tue 15/11/22	Sun 02/10/22	Tue 15/11/22	Fri 11/11/22	Sun 25/12/22	0 days	741,742	745,746,747,748	LA - B x 4~6 men
745	745	5.20.8.4.2.5	RF EOT Crane LA-04-09 SWL 2t	45 days	Wed 16/11/22	Fri 30/12/22	Wed 16/11/22	Fri 30/12/22	Mon 26/12/22	Wed 08/02/23	0 days	743,744	748	LA - A x 4~6 men
746	746	5.20.8.4.2.6	RF Retractable MR LA-04-10 SWL 2t	45 days	Wed 16/11/22	Fri 30/12/22	Wed 16/11/22	Fri 30/12/22	Mon 26/12/22	Wed 08/02/23	0 days	743,744	748	LA - B x 4~6 men
747	747	5.20.8.4.2.7	Mobile A-frame LA-04-11 SWL 2t	7 days	Wed 16/11/22	Tue 22/11/22	Wed 16/11/22	Tue 22/11/22	Thu 02/02/23	Wed 08/02/23	38 days	743,744	748	LA - C x 4~6 men
748	748	5.20.8.4.2.8	T&C, Loading Test for Lifting Appliances	7 days	Sat 31/12/22	Fri 06/01/23	Sat 31/12/22	Fri 06/01/23	Thu 09/02/23	Wed 15/02/23	0 days	741,742,74E	750	LA - A x 4~6 men
749	749	5.20.8.4.3	Mechanical Installations for E&M Equip. at MFB No. 2 Upper Part	377 days	Sun 02/10/22	Fri 13/10/23	Sun 02/10/22	Fri 13/10/23	Thu 16/02/23	Wed 22/11/23	0 days	737FS+45 e	754SS+45 edays,772	
750	750	5.20.8.4.3.1	Installation of air scour blowers (x3)	100 days	Sat 07/01/23	Sun 16/04/23	Sat 07/01/23	Sun 16/04/23	Thu 16/02/23	Fri 26/05/23	0 days	748	751,753	ME - A x 4~6 men
751	751	5.20.8.4.3.2	Installation of compressed air system (x1)	60 days	Mon 17/04/23	Thu 15/06/23	Mon 17/04/23	Thu 15/06/23	Sun 24/09/23	Wed 22/11/23	160 days	750		ME - B x 4~6 men
752	752	5.20.8.4.3.3	Installation of instrumentations, EQT035-1	60 days	Sun 02/10/22	Wed 30/11/22	Sun 02/10/22	Wed 30/11/22	Sun 24/09/23	Wed 22/11/23	357 days	52		ME - D x 2~4 men
753	753	5.20.8.4.3.4	Site Acceptance Tests - mechanical aspects including alignment an	180 days	Mon 17/04/23	Fri 13/10/23	Mon 17/04/23	Fri 13/10/23	Sat 27/05/23	Wed 22/11/23	40 days	750		ME - D x 2~4 men
754	754	5.20.8.4.4	Electrical Installations for E&M Equip. at MFB No. 2 Upper Part	340 days	Wed 16/11/22	Sat 21/10/23	Wed 16/11/22	Sat 21/10/23	Fri 27/01/23	Wed 22/11/23	0 days	749SS+45 e	772	
755	755	5.20.8.4.4.1	Installation of LV Switchboards, BR2	90 days	Wed 16/11/22	Mon 13/02/23	Wed 16/11/22	Mon 13/02/23	Fri 27/01/23	Wed 26/04/23	40 days	695	762	LV - B x 4~6 men
756	756	5.20.8.4.4.2	Installation of LV Switchboards, MFB No. 2	90 days	Wed 16/11/22	Mon 13/02/23	Wed 16/11/22	Mon 13/02/23	Fri 27/01/23	Wed 26/04/23	40 days	698	762	LV - A x 4~6 men
757	757	5.20.8.4.4.3	Installation of PLC Panels, BR2	90 days	Mon 26/12/22	Sat 25/03/23	Mon 26/12/22	Sat 25/03/23	Fri 27/01/23	Wed 26/04/23	0 days	709	762,768	
758	758	5.20.8.4.4.4	Installation of PLC Panels, MFB No. 2	90 days	Mon 26/12/22	Sat 25/03/23	Mon 26/12/22	Sat 25/03/23	Fri 25/08/23	Wed 22/11/23	242 days	712		PLC - B x 1 man

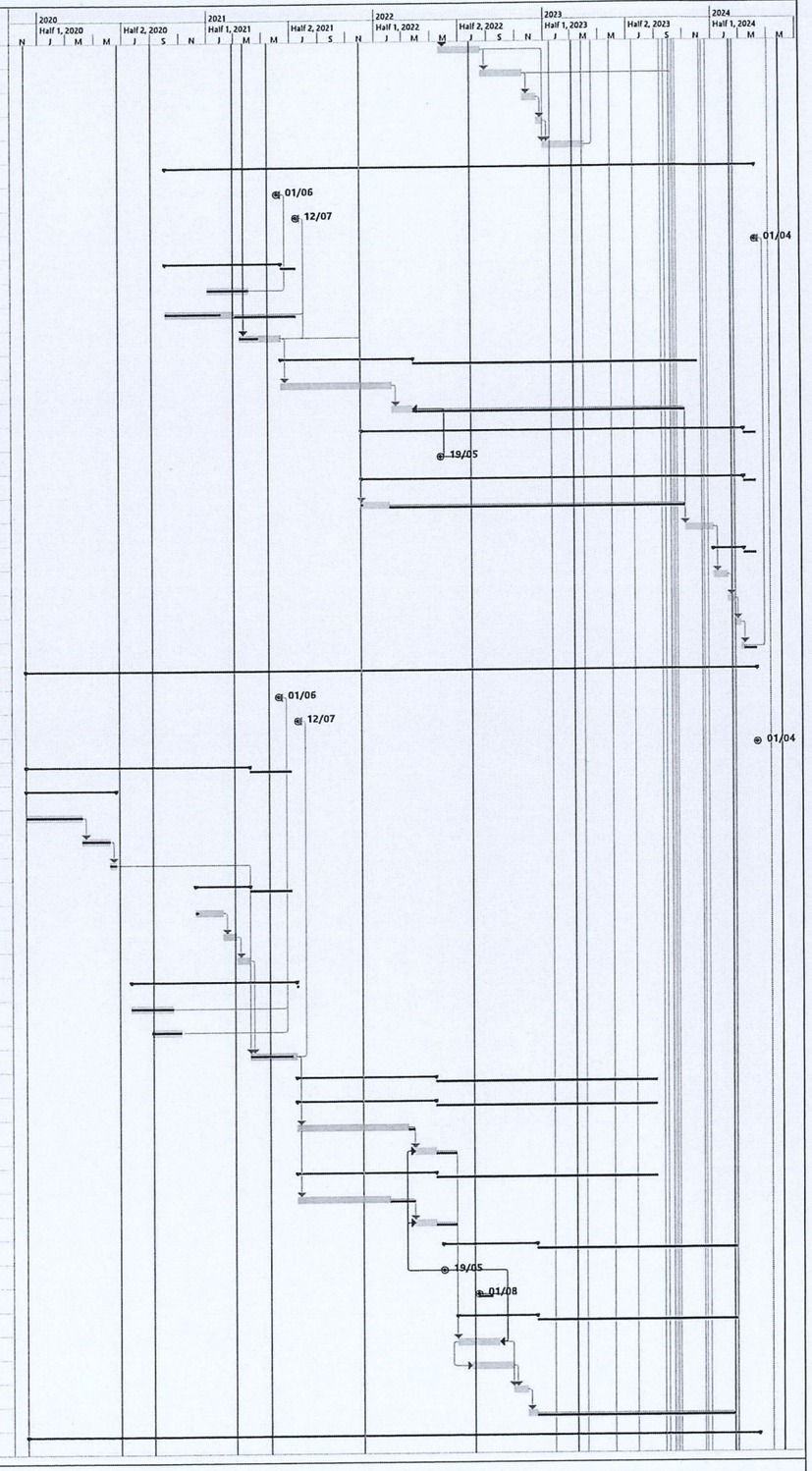
ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
759	759	5.20.8.4.4.5	Installation of HV Switchboards, MFB No. 2	60 days	Wed 16/11/22	Sat 14/01/23	Wed 16/11/22	Sat 14/01/23	Sun 26/02/23	Wed 26/04/23	0 days	702	762,763FS+30 days	HV - A x 4~6 men
760	760	5.20.8.4.4.6	Installation of transformer, MFB No. 2, EQT032	45 days	Mon 26/12/22	Wed 08/02/23	Mon 26/12/22	Wed 08/02/23	Sat 19/08/23	Mon 02/10/23	0 days	705	764FS+30 days	
761	761	5.20.8.4.4.7	Installation of cable trays and cable containments	180 days	Wed 16/11/22	Sun 14/05/23	Wed 16/11/22	Sun 14/05/23	Sat 27/05/23	Wed 22/11/23	192 days	736		
762	762	5.20.8.4.4.8	Cables laying and terminations	150 days	Sun 26/03/23	Tue 22/08/23	Sun 26/03/23	Tue 22/08/23	Thu 27/04/23	Sat 23/09/23	0 days	755,756,757	769,766,765	
763	763	5.20.8.4.4.9	Testing of HV Switchboards, MFB No. 2	21 days	Tue 14/02/23	Mon 06/03/23	Tue 14/02/23	Mon 06/03/23	Thu 02/11/23	Wed 22/11/23	261 days	759FS+30 da		HV - A x 4~6 men
764	764	5.20.8.4.4.10	Testing of Transformers, MFB No. 2	21 days	Sat 11/03/23	Fri 31/03/23	Sat 11/03/23	Fri 31/03/23	Thu 02/11/23	Wed 22/11/23	236 days	760FS+30 da		HV - A x 4~6 men
765	765	5.20.8.4.4.11	Energisation of LV Switchboards, MFB No. 2 (Rev. 8)	1 day	Wed 23/08/23	Wed 23/08/23	Wed 23/08/23	Wed 23/08/23	Wed 22/11/23	Wed 22/11/23	91 days	762		LA - A x 4~6 men
766	766	5.20.8.4.4.12	Site Acceptance Tests - Electrical aspects including voltage and cur	60 days	Wed 23/08/23	Sat 21/10/23	Wed 23/08/23	Sat 21/10/23	Sun 24/09/23	Wed 22/11/23	0 days	762	772	LV - A x 4~6 men
767	767	5.20.8.4.5	SCADA Systems, BR No. 1 & No 2, MFB No. 2	91 days	Wed 23/08/23	Tue 21/11/23	Wed 23/08/23	Tue 21/11/23	Thu 02/11/23	Fri 22/12/23	31 days			
768	768	5.20.8.4.5.1	Configuration of PLC System for BR No. 1 & No. 2	30 days	Mon 02/10/23	Tue 31/10/23	Mon 02/10/23	Tue 31/10/23	Thu 02/11/23	Fri 01/12/23	0 days	757,593	770	PLC - A x 1 man
769	769	5.20.8.4.5.2	Configuration of PLC System for MFB No. 2	30 days	Wed 23/08/23	Thu 21/09/23	Wed 23/08/23	Thu 21/09/23	Thu 02/11/23	Fri 01/12/23	0 days	762	771	
770	770	5.20.8.4.5.3	Site Acceptance Test for PLC System at BR No. 1 and No. 2	21 days	Wed 01/11/23	Tue 21/11/23	Wed 01/11/23	Tue 21/11/23	Sat 02/12/23	Fri 22/12/23	19 days	768	773,597,1282	
771	771	5.20.8.4.5.4	Site Acceptance Test for PLC System at MFB No. 2	21 days	Fri 22/09/23	Thu 12/10/23	Fri 22/09/23	Thu 12/10/23	Sat 02/12/23	Fri 22/12/23	59 days	769	773,1282	
772	772	5.20.8.4.6	Site Acceptance Test for E&M Equip at MFB No. 2	30 edays	Sat 21/10/23	Mon 20/11/23	Sat 21/10/23	Mon 20/11/23	Thu 23/11/23	Sat 23/12/23	20.63 edays	749,754,766	773	
773	773	5.20.8.4.7	System Commissioning for E&M Equip at MFB No. 2	45 days	Mon 11/12/23	Wed 24/01/24	Mon 11/12/23	Wed 24/01/24	Sat 23/12/23	Mon 05/02/24	0 days	770,772,787	774	
774	774	5.20.8.4.8	Risk Allowances for Completion of Processing Plant at MFB No. 2	7 edays	Wed 24/01/24	Wed 31/01/24	Wed 24/01/24	Wed 31/01/24	Tue 06/02/24	Tue 13/02/24	7.63 edays	773	1278	
775	775	5.20.8.4.9	Building Services Installations for MFB No. 2	330 days	Sun 15/01/23	Sun 10/12/23	Sun 15/01/23	Sun 10/12/23	Fri 27/01/23	Mon 05/02/24	12 days	737FS+150 d		
776	776	5.20.8.4.9.1	Mechanical Ventilation and Air Conditioning System, MFB No. 2	120 days	Sun 15/01/23	Sun 14/05/23	Sun 15/01/23	Sun 14/05/23	Thu 27/04/23	Thu 24/08/23	90 days		782	MVAC - A x 4~6 men
777	777	5.20.8.4.9.2	Lighting and Power Distribution System, MFB No. 2	210 days	Sun 15/01/23	Sat 12/08/23	Sun 15/01/23	Sat 12/08/23	Fri 27/01/23	Thu 24/08/23	0 days		782	BS - A x 4~6 men
778	778	5.20.8.4.9.3	Plumbing Installation, MFB No. 2	180 days	Sun 15/01/23	Thu 13/07/23	Sun 15/01/23	Thu 13/07/23	Sun 26/02/23	Thu 24/08/23	30 days	1249	1251,782	Pb - B x 4~6 men
779	779	5.20.8.4.9.4	CCTV Installation (10 indoor + 3 outdoor Cameras), MFB No. 2	90 days	Sun 15/01/23	Fri 14/04/23	Sun 15/01/23	Fri 14/04/23	Sat 27/05/23	Thu 24/08/23	120 days	737FS+120 d	782,1281	BS - B x 4~6 men
780	780	5.20.8.4.9.5	Fire Services Installation, MFB No. 2	120 days	Sun 15/01/23	Sun 14/05/23	Sun 15/01/23	Sun 14/05/23	Thu 27/04/23	Thu 24/08/23	90 days		1202,1214,1215,782	FS - B x 4~6 men
781	781	5.20.8.4.9.6	Earthing and Lightning Protection System, MFB No. 2	60 days	Sun 15/01/23	Wed 15/03/23	Sun 15/01/23	Wed 15/03/23	Fri 08/12/23	Mon 05/02/24	315 days		773FF	BS - C x 2~4 men
782	782	5.20.8.4.9.7	Testing and Commissioning of Building Services Installations, MFB	120 days	Sun 13/08/23	Sun 10/12/23	Sun 13/08/23	Sun 10/12/23	Fri 25/08/23	Fri 22/12/23	0 days	776,777,778	773	BS - C x 2~4 men
783	783	5.21	Chemical System No. 1 and No. 2, Portion B-7 & B-7B (PS 6B.2.3)	1351 days	Tue 21/07/20	Mon 01/04/24	Tue 21/07/20	Mon 01/04/24	Tue 21/07/20	Mon 01/04/24	0 days			
784	784	5.21.1	Planned Key Date Completion Date - KD1B, Chem Sys No. 1 & 2	0 days	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days	801FF,802FF		
785	785	5.21.2	Planned Sectional Completion Date - Section 1, Chem Sys No. 1 & 2	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	803FF,804FF		
786	786	5.21.3	Planned Sectional Completion Date - Section 2, Chem Sys No. 1 & 2	0 days	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	0 days	832FF		
787	787	5.21.4	Selection of Suppliers for major plant and materials for Chemical System	240 days	Thu 01/10/20	Fri 28/05/21	Thu 01/10/20	Fri 28/05/21	Thu 01/10/20	Fri 28/05/21	0 days			
788	788	5.21.4.1	Chemical Storage and Dosing - chemical storage tanks, C11, ref. EQT025	240 days	Thu 01/10/20	Fri 28/05/21	Thu 01/10/20	Fri 28/05/21	Thu 01/10/20	Fri 28/05/21	0 days			
789	789	5.21.4.1.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	0 days		790	
790	790	5.21.4.1.2	Invitation of quotations for purchasing package	30 days	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	0 days	789	791	
791	791	5.21.4.1.3	Acceptance of conforming quotation (Completed)	30 days	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	0 days	790	803	
792	792	5.21.4.2	Chemical Storage and Dosing - chemical dosing pumps, C11, ref. EQT027	150 days	Thu 01/10/20	Sat 27/02/21	Thu 01/10/20	Sat 27/02/21	Thu 01/10/20	Sat 27/02/21	0 days			
793	793	5.21.4.2.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	0 days		794	
794	794	5.21.4.2.2	Invitation of quotations for purchasing package	60 days	Mon 30/11/20	Thu 28/01/21	Mon 30/11/20	Thu 28/01/21	Mon 30/11/20	Thu 28/01/21	0 days	793	795	
795	795	5.21.4.2.3	Acceptance of conforming quotation (Completed)	30 days	Fri 29/01/21	Sat 27/02/21	Fri 29/01/21	Sat 27/02/21	Fri 29/01/21	Sat 27/02/21	0 days	794	803,804,805	
796	796	5.21.4.3	Chemical Storage and Dosing - transfer pumps, C11, ref. EQT026	120 days	Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Thu 28/01/21	0 days			
797	797	5.21.4.3.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	0 days		798	
798	798	5.21.4.3.2	Invitation of quotations for purchasing package	30 days	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	0 days	797	799	
799	799	5.21.4.3.3	Acceptance of conforming quotation (Completed)	30 days	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	0 days	798	803	
800	800	5.21.5	Design Submissions for Chemical System No. 1 and No. 2	324 days	Tue 21/07/20	Thu 10/06/21	Tue 21/07/20	Thu 10/06/21	Tue 21/07/20	Mon 12/07/21	33 days			
801	801	5.21.5.1	Electrical schematic drawings for Chemical Systems No. 1 and No. 2	60 days	Tue 21/07/20	Fri 18/09/20	Tue 21/07/20	Fri 18/09/20	Tue 21/07/20	Tue 01/06/21	256 days		784FF	
802	802	5.21.5.2	CDS081-S - Civil and dimensional requirements drawings for Chemical S	70 days	Fri 28/08/20	Thu 05/11/20	Fri 28/08/20	Thu 05/11/20	Fri 28/08/20	Thu 05/11/20	0 days		784FF	
803	803	5.21.5.3	CDS006 - Detailed Design for Chemical Dosing System	90 edays	Sat 27/02/21	Fri 28/05/21	Sat 27/02/21	Fri 28/05/21	Sat 27/02/21	Mon 12/07/21	0.63 edays	791,795,795	809,812,815,785FF	
804	804	5.21.5.4	CDS027 - Detailed Design for Electrical Installations for Chemical Syster	90 edays	Sat 27/02/21	Fri 28/05/21	Sat 27/02/21	Fri 28/05/21	Sat 27/02/21	Mon 12/07/21	45 edays	795	822,785FF	
805	805	5.21.5.5	CDS028 - Detailed Design for Electrical Installations for Chemical Syster	90 edays	Sat 27/02/21	Fri 28/05/21	Sat 27/02/21	Fri 28/05/21	Sat 27/02/21	Mon 12/07/21	45 edays	795	822,785FF	
806	806	5.21.5.6	CDS034-S - Detailed Design for Electrical Installations BS at Chemical Sy	90 edays	Fri 12/03/21	Thu 10/06/21	Fri 12/03/21	Thu 10/06/21	Fri 12/03/21	Mon 12/07/21	32.38 edays	140	822,785FF	
807	807	5.21.6	Manufacturing and Delivery of Plant & Materials	296 days	Sat 29/05/21	Sun 20/03/22	Sat 29/05/21	Sun 20/03/22	Thu 29/09/22	Thu 11/05/23	417 days			
808	808	5.21.6.1	Chemical Storage Tanks, EQT025	225 days	Sat 29/05/21	Sat 08/01/22	Sat 29/05/21	Sat 08/01/22	Thu 29/09/22	Thu 11/05/23	488 days			
809	809	5.21.6.1.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Sat 29/05/21	Wed 24/11/21	Sat 29/05/21	Wed 24/11/21	Thu 29/09/22	Mon 27/03/23	0 days	803	810	
810	810	5.21.6.1.2	Shipping and Delivery of Plant to site	45 days	Thu 25/11/21	Sat 08/01/22	Thu 25/11/21	Sat 08/01/22	Tue 28/03/23	Thu 11/05/23	73 days	809	821	
811	811	5.21.6.2	Chemical Dosing Pumps, EQT027	296 days	Sat 29/05/21	Sun 20/03/22	Sat 29/05/21	Sun 20/03/22	Thu 29/09/22	Thu 11/05/23	417 days			
812	812	5.21.6.2.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Sat 29/05/21	Wed 24/11/21	Sat 29/05/21	Wed 24/11/21	Thu 29/09/22	Mon 27/03/23	71 days	803	813	
813	813	5.21.6.2.2	Shipping and Delivery of Plant to site	45 days	Fri 04/02/22	Sun 20/03/22	Fri 04/02/22	Sun 20/03/22	Tue 28/03/23	Thu 11/05/23	2 days	812,818FF-6	821	
814	814	5.21.6.3	Chemical Transfer Pumps, EQT026	296 days	Sat 29/05/21	Sun 20/03/22	Sat 29/05/21	Sun 20/03/22	Thu 29/09/22	Thu 11/05/23	417 days			
815	815	5.21.6.3.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Sat 29/05/21	Wed 24/11/21	Sat 29/05/21	Wed 24/11/21	Thu 29/09/22	Mon 27/03/23	71 days	803	816	
816	816	5.21.6.3.2	Shipping and Delivery of Plant to site	45 days	Fri 04/02/22	Sun 20/03/22	Fri 04/02/22	Sun 20/03/22	Tue 28/03/23	Thu 11/05/23	2 days	815,818FF-6	821	
817	817	5.21.7	Site Installation Work	307 days	Tue 22/03/22	Mon 23/01/23	Tue 22/03/22	Mon 23/01/23	Fri 12/05/23	Mon 01/04/24	415 days			



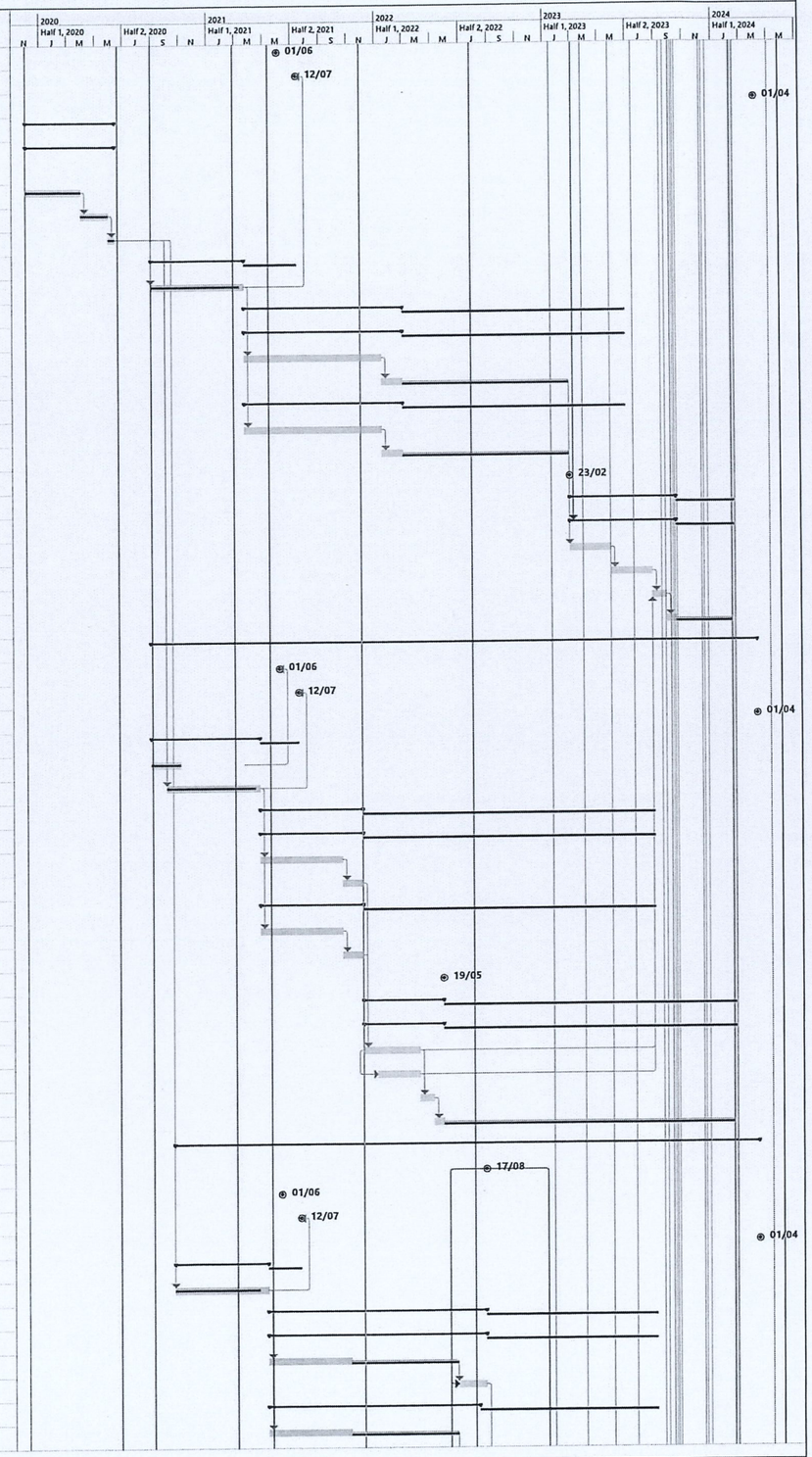
ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
818	818	5.21.7.1	Tentative Civil Handover Date, Portion B-7 & B-7B (Rev. 5)	1 day	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Mon 10/07/23	Mon 10/07/23	0 days		816FF-60 edays,813FF-60	
819	819	5.21.7.2	Tentative Civil Handover Date, Chemical Pipe Trench (by others)	1 day	Sun 01/05/22	Sun 01/05/22	Sun 01/05/22	Sun 01/05/22	Tue 20/06/23	Tue 20/06/23	33 days		821FF+50 days	
820	820	5.21.7.3	Commencement of E&M Installation at Chemical Dosing System 1 and System 2	307 days	Tue 22/03/22	Mon 23/01/23	Tue 22/03/22	Mon 23/01/23	Fri 12/05/23	Mon 01/04/24	415 days			
821	821	5.21.7.3.1	Mechanical Installations for E&M Equip. for Chemical Dosing System	90 edays	Tue 22/03/22	Mon 20/06/22	Tue 22/03/22	Mon 20/06/22	Fri 12/05/23	Thu 10/08/23	0 edays	819FF+50 d	822	ME - D x 2~4 men
822	822	5.21.7.3.2	Electrical Installations for E&M Equip. for Chemical Dosing System	90 edays	Mon 20/06/22	Sun 18/09/22	Mon 20/06/22	Sun 18/09/22	Thu 10/08/23	Wed 08/11/23	0.63 edays	821,804,805	823,831	EE - B x 4~6 men
823	823	5.21.7.3.3	Site Acceptance Test for E&M Equip for Chemical Dosing System	45 days	Mon 19/09/22	Wed 02/11/22	Mon 19/09/22	Wed 02/11/22	Wed 08/11/23	Fri 22/12/23	0 days	822	824	EE - A x 4~6 men
824	824	5.21.7.3.4	System Commissioning for E&M Equip for Chemical Dosing System	45 days	Thu 03/11/22	Sat 17/12/22	Thu 03/11/22	Sat 17/12/22	Sat 23/12/23	Mon 05/02/24	0 days	823	825	
825	825	5.21.7.3.5	Risk Allowances for Completion of Processing Plant at Chemical Dosi	7 edays	Sat 17/12/22	Sat 24/12/22	Sat 17/12/22	Sat 24/12/22	Tue 06/02/24	Tue 13/02/24	410.63 ed...	824	1278	
826	826	5.21.7.3.6	Building Services Installations at Chemical Dosing System areas	249 days	Fri 20/05/22	Mon 23/01/23	Fri 20/05/22	Mon 23/01/23	Thu 13/07/23	Mon 01/04/24	419 days			
827	827	5.21.7.3.6.1	Lighting and Power Distribution System, Chem 1&2	120 days	Fri 20/05/22	Fri 16/09/22	Fri 20/05/22	Fri 16/09/22	Sun 06/08/23	Sun 03/12/23	9 days	818	832	BS - B x 4~6 men
828	828	5.21.7.3.6.2	Fire Services Installation, DG Stores	120 days	Fri 20/05/22	Fri 16/09/22	Fri 20/05/22	Fri 16/09/22	Thu 13/07/23	Thu 09/11/23	9 days	818	1214,1215,1205,832	FS - A x 4~6 men
829	829	5.21.7.3.6.3	Lightning Protection System, Chem 1&2	30 days	Fri 20/05/22	Sat 18/06/22	Fri 20/05/22	Sat 18/06/22	Sat 04/11/23	Sun 03/12/23	99 days	818	832	EE - D x 4~6 men
830	830	5.21.7.3.6.4	Mechanical Ventilation System, Chem 2	14 days	Fri 20/05/22	Thu 02/06/22	Fri 20/05/22	Thu 02/06/22	Mon 20/11/23	Sun 03/12/23	115 days	818	832	MVAC - A x 4~6 men
831	831	5.21.7.3.6.5	Plumbing Installation, Chem 1	7 days	Mon 19/09/22	Sun 25/09/22	Mon 19/09/22	Sun 25/09/22	Mon 27/11/23	Sun 03/12/23	0 days	822	832	Pb - A x 4~6 men
832	832	5.21.7.3.6.6	Testing and Commissioning of Building Services Installations, Chen	120 days	Mon 26/09/22	Mon 23/01/23	Mon 26/09/22	Mon 23/01/23	Mon 04/12/23	Mon 01/04/24	434 days	827,828,831	786FF	BS - C x 2~4 men
833	833	5.22	Temporary Chemical Dosing System, Portion B7 & B-7B (PS 6B.2.3)	1344 days	Tue 28/07/20	Mon 01/04/24	Tue 28/07/20	Mon 01/04/24	Tue 28/07/20	Mon 01/04/24	0 days			
834	834	5.22.1	Planned Key Date Completion Date - KD1B, Temp. Chem Dosing Sys	0 days	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days	851FF,852FF		
835	835	5.22.2	Planned Sectional Completion Date - Section 1, Temp. Chem Dosing Sys	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	853FF		
836	836	5.22.3	Planned Sectional Completion Date - Section 2, Temp. Chem Dosing Sys	0 days	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	0 days			
837	837	5.22.4	Selection of Suppliers for major plant and materials for Temp. Chemical Dosing System	150 days	Thu 01/10/20	Sat 27/02/21	Thu 01/10/20	Sat 27/02/21	Thu 01/10/20	Sat 27/02/21	0 days			
838	838	5.22.4.1	Chemical Storage and Dosing - chemical storage tanks, C11, ref. EQT0	120 days	Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Thu 28/01/21	0 days			
839	839	5.22.4.1.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	0 days	839	840	
840	840	5.22.4.1.2	Invitation of quotations for purchasing package	30 days	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	0 days	840	841	
841	841	5.22.4.1.3	Acceptance of conforming quotation (Completed)	30 days	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	0 days	840	853,856	
842	842	5.22.4.2	Chemical Storage and Dosing - chemical dosing pumps, C11, ref. EQT0	150 days	Thu 01/10/20	Sat 27/02/21	Thu 01/10/20	Sat 27/02/21	Thu 01/10/20	Sat 27/02/21	0 days			
843	843	5.22.4.2.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	0 days		844	
844	844	5.22.4.2.2	Invitation of quotations for purchasing package	60 days	Mon 30/11/20	Thu 28/01/21	Mon 30/11/20	Thu 28/01/21	Mon 30/11/20	Thu 28/01/21	0 days	843	845	
845	845	5.22.4.2.3	Acceptance of conforming quotation (Completed)	30 days	Fri 29/01/21	Sat 27/02/21	Fri 29/01/21	Sat 27/02/21	Fri 29/01/21	Sat 27/02/21	0 days	844	859	
846	846	5.22.4.3	Chemical Storage and Dosing - transfer pumps, C11, ref. EQT026	120 days	Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Thu 28/01/21	0 days			
847	847	5.22.4.3.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	0 days		848	
848	848	5.22.4.3.2	Invitation of quotations for purchasing package	30 days	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	0 days	847	849	
849	849	5.22.4.3.3	Acceptance of conforming quotation (Completed)	30 days	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	0 days	848	862	
850	850	5.22.5	Design Submissions for Temporary Chemical Dosing System	275 days	Tue 28/07/20	Wed 28/04/21	Tue 28/07/20	Wed 28/04/21	Tue 28/07/20	Mon 12/07/21	75 days			
851	851	5.22.5.1	Electrical schematic drawings for Temporary Chemical Dosing System	60 days	Tue 28/07/20	Fri 25/09/20	Tue 28/07/20	Fri 25/09/20	Tue 28/07/20	Fri 25/09/20	0 days		834FF	
852	852	5.22.5.2	CDS081-6 - Civil and dimensional requirements drawings for Temporar	70 days	Fri 28/08/20	Thu 05/11/20	Fri 28/08/20	Thu 05/11/20	Fri 28/08/20	Thu 05/11/20	0 days		834FF	
853	853	5.22.5.3	CDS029 - Detailed Design for Electrical Installations for Temporary Che	90 edays	Thu 28/01/21	Wed 28/04/21	Thu 28/01/21	Wed 28/04/21	Thu 28/01/21	Mon 12/07/21	75 edays	841	869,835FF	
854	854	5.22.6	Manufacturing and Delivery of Plant & Materials	416 days	Fri 29/01/21	Sun 20/03/22	Fri 29/01/21	Sun 20/03/22	Wed 28/12/22	Wed 09/08/23	507 days			
855	855	5.22.6.1	Chemical Storage Tanks, EQT025	416 days	Fri 29/01/21	Sun 20/03/22	Fri 29/01/21	Sun 20/03/22	Wed 28/12/22	Wed 09/08/23	507 days			
856	856	5.22.6.1.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Fri 29/01/21	Tue 27/07/21	Fri 29/01/21	Tue 27/07/21	Wed 28/12/22	Sun 25/06/23	191 days	841	857	
857	857	5.22.6.1.2	Shipping and Delivery of Plant to site	45 days	Fri 04/02/22	Sun 20/03/22	Fri 04/02/22	Sun 20/03/22	Mon 26/06/23	Wed 09/08/23	20 days	856,865FF-6	868	
858	858	5.22.6.2	Chemical Dosing Pumps, EQT027	386 days	Sun 28/02/21	Sun 20/03/22	Sun 28/02/21	Sun 20/03/22	Wed 28/12/22	Wed 09/08/23	507 days			
859	859	5.22.6.2.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Sun 28/02/21	Thu 26/08/21	Sun 28/02/21	Thu 26/08/21	Wed 28/12/22	Sun 25/06/23	161 days	845	860	
860	860	5.22.6.2.2	Shipping and Delivery of Plant to site	45 days	Fri 04/02/22	Sun 20/03/22	Fri 04/02/22	Sun 20/03/22	Mon 26/06/23	Wed 09/08/23	20 days	859,865FF-6	868	
861	861	5.22.6.3	Chemical Transfer Pumps, EQT026	416 days	Fri 29/01/21	Sun 20/03/22	Fri 29/01/21	Sun 20/03/22	Wed 28/12/22	Wed 09/08/23	507 days			
862	862	5.22.6.3.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Fri 29/01/21	Tue 27/07/21	Fri 29/01/21	Tue 27/07/21	Wed 28/12/22	Sun 25/06/23	191 days	849	863	
863	863	5.22.6.3.2	Shipping and Delivery of Plant to site	45 days	Fri 04/02/22	Sun 20/03/22	Fri 04/02/22	Sun 20/03/22	Mon 26/06/23	Wed 09/08/23	20 days	862,865FF-6	868	
864	864	5.22.7	Site Installation Work	361 days	Sat 09/04/22	Wed 05/04/23	Sat 09/04/22	Wed 05/04/23	Tue 28/03/23	Tue 13/02/24	313 days			
865	865	5.22.7.1	Tentative Civil Handover Date, Temporary Chemical Dosing (Rev. 5)	1 day	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Tue 28/03/23	Tue 28/03/23	0 days		857FF-60 edays,860FF-60	
866	866	5.22.7.2	Tentative Civil Handover Date, Chemical Pipe Trench (by others)	1 day	Sun 01/05/22	Sun 01/05/22	Sun 01/05/22	Sun 01/05/22	Mon 18/09/23	Mon 18/09/23	51 days		868FF+50 days	
867	867	5.22.7.3	Commencement of E&M Installation at Temporary Chemical Dosing System	361 days	Sat 09/04/22	Wed 05/04/23	Sat 09/04/22	Wed 05/04/23	Wed 29/03/23	Tue 13/02/24	313 days			
868	868	5.22.7.3.1	Mechanical Installations for E&M Equip. for Chemical Dosing System	90 edays	Sat 09/04/22	Fri 08/07/22	Sat 09/04/22	Fri 08/07/22	Thu 10/08/23	Wed 08/11/23	0 edays	866FF+50 d	869SS+30 edays,870	ME - D x 2~4 men
869	869	5.22.7.3.2	Electrical Installations for E&M Equip. for Chemical Dosing System	90 edays	Mon 09/05/22	Sun 07/08/22	Mon 09/05/22	Sun 07/08/22	Sat 09/09/23	Fri 08/12/23	0 edays	868SS+30 e	870	EE - A x 4~6 men
870	870	5.22.7.3.3	Site Acceptance Test for E&M Equip for Chemical Dosing System	30 edays	Sun 07/08/22	Tue 06/09/22	Sun 07/08/22	Tue 06/09/22	Fri 08/12/23	Sun 07/01/24	174 edays	868,869	871	
871	871	5.22.7.3.4	System Commissioning for E&M Equip for Chemical Dosing System	30 edays	Mon 27/02/23	Wed 29/03/23	Mon 27/02/23	Wed 29/03/23	Sun 07/01/24	Tue 06/02/24	0 edays	870,878FF	872	
872	872	5.22.7.3.5	Risk Allowances for Completion of Processing Plant at Chemical Dosi	7 edays	Wed 29/03/23	Wed 05/04/23	Wed 29/03/23	Wed 05/04/23	Tue 06/02/24	Tue 13/02/24	308.63 ed...	871	1278	
873	873	5.22.7.3.6	Building Services Installations at Temp. Chemical Dosing System ar	314 days	Fri 20/05/22	Wed 29/03/23	Fri 20/05/22	Wed 29/03/23	Wed 29/03/23	Mon 05/02/24	313 days			



ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
874	874	5.22.7.3.6.1	Lighting and Power Distribution System, Temp. Chem	90 days	Fri 20/05/22	Wed 17/08/22	Fri 20/05/22	Wed 17/08/22	Wed 29/03/23	Mon 26/06/23	0 days	865	878,875	BS - A x 4~6 men
875	875	5.22.7.3.6.2	Fire Services Installation, DG Stores, Temp. Chem	90 days	Thu 18/08/22	Tue 15/11/22	Thu 18/08/22	Tue 15/11/22	Tue 27/06/23	Sun 24/09/23	0 days	874	1214,1215,878,876	FS - A x 4~6 men
876	876	5.22.7.3.6.3	Lightning Protection System, Temp. Chem	30 days	Wed 16/11/22	Thu 15/12/22	Wed 16/11/22	Thu 15/12/22	Mon 25/09/23	Tue 24/10/23	0 days	875	877	EE - D x 4~6 men
877	877	5.22.7.3.6.4	Mechanical Ventilation System, Temp. Chem	14 days	Fri 16/12/22	Thu 29/12/22	Fri 16/12/22	Thu 29/12/22	Wed 25/10/23	Tue 07/11/23	0 days	876	878	MVAC - A x 4~6 men
878	878	5.22.7.3.6.5	Testing and Commissioning of Building Services Installations, Temp	90 days	Fri 30/12/22	Wed 29/03/23	Fri 30/12/22	Wed 29/03/23	Wed 08/11/23	Mon 05/02/24	0 days	874,875,877	871FF	BS - C x 2~4 men
879	879	5.23	Emergency Generator House, Portion B7 & B-7B (PS 6B.6.6)	1279 days	Thu 01/10/20	Mon 01/04/24	Thu 01/10/20	Mon 01/04/24	Thu 01/10/20	Mon 01/04/24	0 days			
880	880	5.23.1	Planned Key Date Completion Date - KD1B, Emergency Generator House	0 days	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days	884FF		
881	881	5.23.2	Planned Sectional Completion Date - Section 1, Emergency Generator Hou	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	885FF,886FF		
882	882	5.23.3	Planned Sectional Completion Date - Section 2, Emergency Generator Hou	0 days	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	0 days	899FF		
883	883	5.23.4	Design Submissions for Emergency Generator Set	252 days	Thu 01/10/20	Thu 10/06/21	Thu 01/10/20	Thu 10/06/21	Thu 01/10/20	Mon 12/07/21	33 days			
884	884	5.23.4.1	CDS081-10 - Civil and dimensional requirements drawings for Emergen	90 days	Fri 01/01/21	Wed 31/03/21	Fri 01/01/21	Wed 31/03/21	Fri 01/01/21	Wed 31/03/21	0 days		880FF	
885	885	5.23.4.2	CDS061 - Detailed Design for Emergency Generator Set	150 edays	Thu 01/10/20	Sun 28/02/21	Thu 01/10/20	Sun 28/02/21	Thu 01/10/20	Mon 12/07/21	134.38 ed...		881FF	
886	886	5.23.4.3	CDS034-6 - Detailed Design for Electrical Installations BS at Emergency	90 edays	Fri 12/03/21	Thu 10/06/21	Fri 12/03/21	Thu 10/06/21	Fri 12/03/21	Mon 12/07/21	0 edays	140	888,893,881FF	
887	887	5.23.5	Manufacturing and Delivery of Plant & Materials	285 days	Thu 10/06/21	Mon 21/03/22	Thu 10/06/21	Mon 21/03/22	Thu 16/02/23	Mon 27/11/23	616 days			
888	888	5.23.5.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Thu 10/06/21	Fri 04/02/22	Thu 10/06/21	Fri 04/02/22	Thu 16/02/23	Fri 13/10/23	0 days	886	889	
889	889	5.23.5.2	Shipping and Delivery of Plant to Site	45 days	Sat 05/02/22	Mon 21/03/22	Sat 05/02/22	Mon 21/03/22	Sat 14/10/23	Mon 27/11/23	589 days	888,891FF-6	894	
890	890	5.23.6	Site Installation Work	826 days	Wed 01/12/21	Tue 05/03/24	Wed 01/12/21	Tue 05/03/24	Wed 01/12/21	Mon 01/04/24	27 days			
891	891	5.23.6.1	Tentative Civil Handover Date, Emergency Generator House (Rev. 5)	1 day	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Mon 18/09/23	Mon 18/09/23	1 day		868FF+50 days,889FF-60	
892	892	5.23.6.2	Commencement of E&M Installation at Emergency Generator House	826 days	Wed 01/12/21	Tue 05/03/24	Wed 01/12/21	Tue 05/03/24	Wed 01/12/21	Mon 01/04/24	27 days			
893	893	5.23.6.2.1	Application for EPD's Approval for Installation of Diesel Engine Gener	60 days	Wed 01/12/21	Sat 29/01/22	Wed 01/12/21	Sat 29/01/22	Wed 01/12/21	Mon 27/11/23	640 days	886	894	
894	894	5.23.6.2.2	Installation and SAT of Emergency Power Generator and associated v	60 days	Wed 01/11/23	Sat 30/12/23	Wed 01/11/23	Sat 30/12/23	Tue 28/11/23	Fri 26/01/24	0 days	893,889	896	GS - A x 4 men
895	895	5.23.6.2.3	Building Services Installation at Emergency Generator House	66 days	Sun 31/12/23	Tue 05/03/24	Sun 31/12/23	Tue 05/03/24	Sat 27/01/24	Mon 01/04/24	27 days			
896	896	5.23.6.2.3.1	Fire Services Installation, GH	30 days	Sun 31/12/23	Mon 29/01/24	Sun 31/12/23	Mon 29/01/24	Sat 27/01/24	Sun 25/02/24	0 days	894	897	FS - A x 4~6 men
897	897	5.23.6.2.3.2	Mechanical Ventilation System, GH	14 days	Tue 30/01/24	Mon 12/02/24	Tue 30/01/24	Mon 12/02/24	Mon 26/02/24	Sun 10/03/24	0 days	896	898	MVAC - A x 4~6 men
898	898	5.23.6.2.3.3	Lightning Protection System, GH	15 days	Tue 13/02/24	Tue 27/02/24	Tue 13/02/24	Tue 27/02/24	Mon 11/03/24	Mon 25/03/24	0 days	897	899	EE - D x 4~6 men
899	899	5.23.6.2.3.4	Testing and Commissioning of Building Services Installation, GH	7 days	Wed 28/02/24	Tue 05/03/24	Wed 28/02/24	Tue 05/03/24	Tue 26/03/24	Mon 01/04/24	27 days	898	882FF	BS - A x 4~6 men
900	900	5.24	Deodorization System, DOU 1, Portion B7 & B-7B (PS 6B.2.6)	1583 days	Mon 02/12/19	Mon 01/04/24	Mon 02/12/19	Mon 01/04/24	Mon 02/12/19	Mon 01/04/24	0 days			
901	901	5.24.1	Planned Key Date Completion Date - KD1B, DOU 1	0 days	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days	914FF,915FF		
902	902	5.24.2	Planned Sectional Completion Date - Section 1, DOU 1	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	916FF		
903	903	5.24.3	Planned Sectional Completion Date - Section 2, DOU 1	0 days	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	0 days			
904	904	5.24.4	Selection of Plant and Materials	485 days	Mon 02/12/19	Tue 30/03/21	Mon 02/12/19	Tue 30/03/21	Mon 02/12/19	Mon 28/06/21	90 days			
905	905	5.24.4.1	DOU - biotrickling filter (DOU No. 1), C11, ref. EQT001	194 days	Mon 02/12/19	Fri 12/06/20	Mon 02/12/19	Fri 12/06/20	Mon 02/12/19	Fri 12/06/20	0 days			
906	906	5.24.4.1.1	Submission for acceptance of purchasing package	120 days	Mon 02/12/19	Mon 30/03/20	Mon 02/12/19	Mon 30/03/20	Mon 02/12/19	Mon 30/03/20	0 days		907	
907	907	5.24.4.1.2	Invitation of quotations for purchasing package	60 days	Tue 31/03/20	Fri 29/05/20	Tue 31/03/20	Fri 29/05/20	Tue 31/03/20	Fri 29/05/20	0 days	906	908	
908	908	5.24.4.1.3	Acceptance of conforming quotation (Completed)	14 days	Sat 30/05/20	Fri 12/06/20	Sat 30/05/20	Fri 12/06/20	Sat 30/05/20	Fri 12/06/20	0 days	907	916	
909	909	5.24.4.2	DOU - FRP air ductwork, C11, EQT047	120 days	Tue 01/12/20	Tue 30/03/21	Tue 01/12/20	Tue 30/03/21	Tue 01/12/20	Mon 28/06/21	90 days			
910	910	5.24.4.2.1	Submission for acceptance of purchasing package	60 days	Tue 01/12/20	Fri 29/01/21	Tue 01/12/20	Fri 29/01/21	Tue 01/12/20	Thu 29/04/21	0 days		911	
911	911	5.24.4.2.2	Invitation of quotations for purchasing package	30 days	Sat 30/01/21	Sun 28/02/21	Sat 30/01/21	Sun 28/02/21	Fri 30/04/21	Sat 29/05/21	0 days	910	912	
912	912	5.24.4.2.3	Acceptance of conforming quotation	30 days	Mon 01/03/21	Tue 30/03/21	Mon 01/03/21	Tue 30/03/21	Sun 30/05/21	Mon 28/06/21	0 days	911	916	
913	913	5.24.5	Design Submissions for DOU No. 1	359 days	Wed 15/07/20	Thu 08/07/21	Wed 15/07/20	Thu 08/07/21	Wed 15/07/20	Mon 12/07/21	4 days			
914	914	5.24.5.1	Electrical schematic drawings for Deodorisation Systems	90 days	Wed 15/07/20	Mon 12/10/20	Wed 15/07/20	Mon 12/10/20	Wed 15/07/20	Mon 12/10/20	0 days		901FF	
915	915	5.24.5.2	CDS081-7 - Civil and dimensional requirements drawings for DOU No. 1	70 days	Fri 28/08/20	Thu 05/11/20	Fri 28/08/20	Thu 05/11/20	Fri 28/08/20	Thu 05/11/20	0 days		901FF	
916	916	5.24.5.3	CDS007-1 - Detailed Design for Deodorisation System, DOU No. 1	100 edays	Tue 30/03/21	Thu 08/07/21	Tue 30/03/21	Thu 08/07/21	Tue 30/03/21	Mon 12/07/21	0.63 edays	908,912	919,922,902FF	
917	917	5.24.6	Manufacturing and Delivery of Plant & Materials	299 days	Fri 09/07/21	Tue 03/05/22	Fri 09/07/21	Tue 03/05/22	Mon 14/11/22	Fri 25/08/23	479 days			
918	918	5.24.6.1	DOU 1	299 days	Fri 09/07/21	Tue 03/05/22	Fri 09/07/21	Tue 03/05/22	Mon 14/11/22	Fri 25/08/23	479 days			
919	919	5.24.6.1.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Fri 09/07/21	Sat 05/03/22	Fri 09/07/21	Sat 05/03/22	Mon 14/11/22	Tue 11/07/23	14 days	916	920	
920	920	5.24.6.1.2	Shipping and Delivery of Plant to site	45 days	Sun 20/03/22	Tue 03/05/22	Sun 20/03/22	Tue 03/05/22	Wed 12/07/23	Fri 25/08/23	45 days	919,925SS-6	928	
921	921	5.24.6.2	FRP Air Ductwork	299 days	Fri 09/07/21	Tue 03/05/22	Fri 09/07/21	Tue 03/05/22	Sat 24/12/22	Fri 25/08/23	479 days			
922	922	5.24.6.2.1	Manufacturing and Factory Acceptance Test of Plant	200 days	Fri 09/07/21	Mon 24/01/22	Fri 09/07/21	Mon 24/01/22	Sat 24/12/22	Tue 11/07/23	54 days	916	923	
923	923	5.24.6.2.2	Shipping and Delivery of Plant to Site	45 days	Sun 20/03/22	Tue 03/05/22	Sun 20/03/22	Tue 03/05/22	Wed 12/07/23	Fri 25/08/23	45 days	922,925SS-6	928	
924	924	5.24.7	Site Installation Work	201 days	Thu 19/05/22	Mon 05/12/22	Thu 19/05/22	Mon 05/12/22	Fri 25/08/23	Tue 13/02/24	434 days			
925	925	5.24.7.1	Tentative Civil Handover, DOU 1 (Rev. 5)	1 day	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Fri 25/08/23	Fri 25/08/23	0 days		928FF+45 days,920SS-60	
926	926	5.24.7.2	Tentative Civil Handover Date, underground air pipework for DOU 1 (by	1 day	Mon 01/08/22	Mon 01/08/22	Mon 01/08/22	Mon 01/08/22	Mon 09/10/23	Mon 09/10/23	30 days		928FF+45 days	
927	927	5.24.7.3	Commencement of E&M Installation at DOU 1	171 days	Fri 17/06/22	Mon 05/12/22	Fri 17/06/22	Mon 05/12/22	Sat 26/08/23	Tue 13/02/24	434 days			
928	928	5.24.7.3.1	Mechanical Installations for DOU 1	90 edays	Fri 17/06/22	Thu 15/09/22	Fri 17/06/22	Thu 15/09/22	Sat 26/08/23	Fri 24/11/23	0 edays	926FF+45 d	929SS+30 edays,930	ME - F x 4~6 men
929	929	5.24.7.3.2	Electrical Installations for DOU 1	90 edays	Sun 17/07/22	Sat 15/10/22	Sun 17/07/22	Sat 15/10/22	Mon 25/09/23	Sun 24/12/23	0 edays	928SS+30 e	930	EE - C x 4~6 men
930	930	5.24.7.3.3	Site Acceptance Test for DOU1	30 edays	Sat 15/10/22	Mon 14/11/22	Sat 15/10/22	Mon 14/11/22	Sun 24/12/23	Tue 23/01/24	0 edays	928,929	931	
931	931	5.24.7.3.4	System Commissioning for DOU 1	21 edays	Mon 14/11/22	Mon 05/12/22	Mon 14/11/22	Mon 05/12/22	Tue 23/01/24	Tue 13/02/24	429.63 ed...	930	1278	
932	932	5.25	Deodorization System, DOU 2A, Portion B-4 (PS 6B.2.6)	1583 days	Mon 02/12/19	Mon 01/04/24	Mon 02/12/19	Mon 01/04/24	Mon 02/12/19	Mon 01/04/24	0 days			



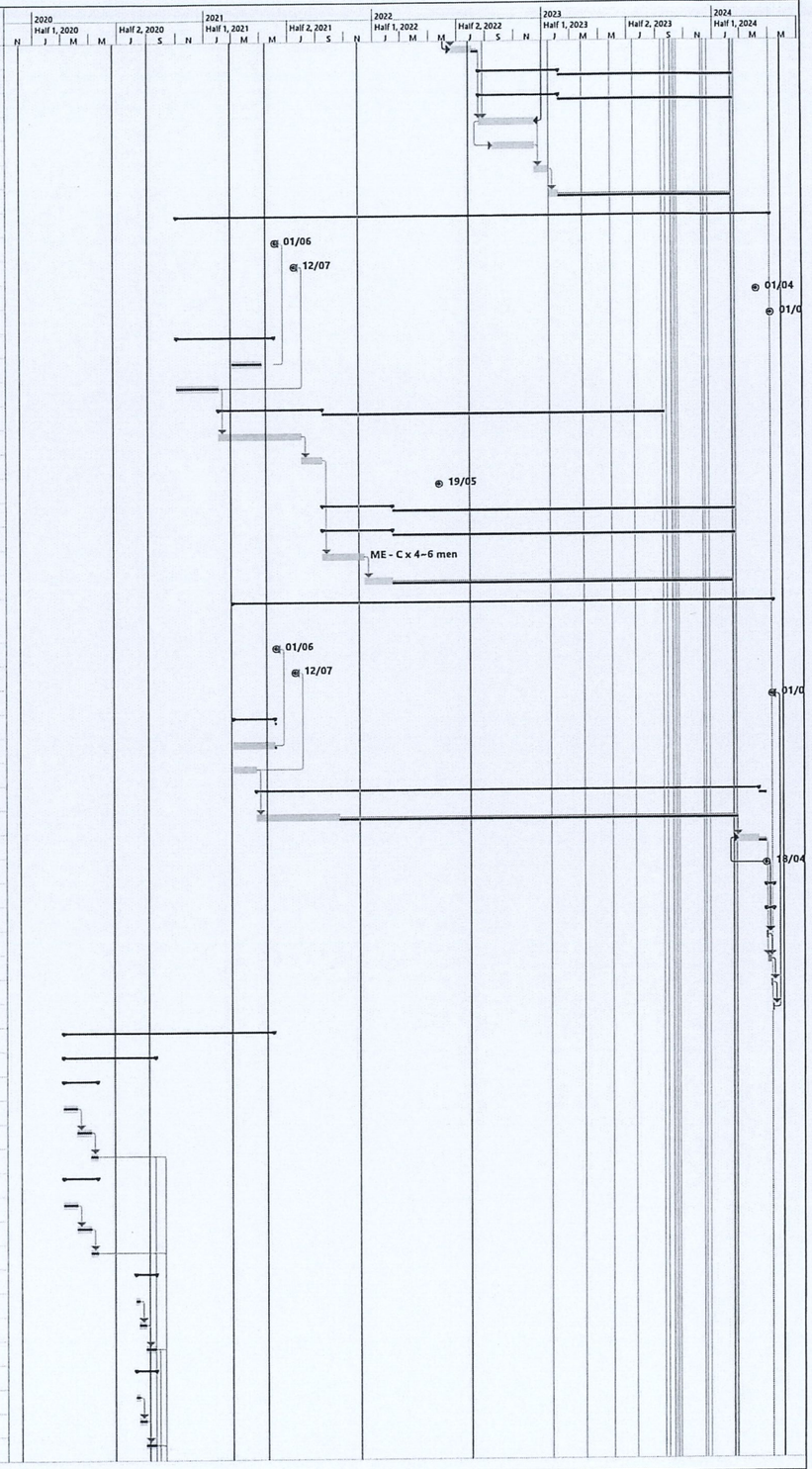
ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
933	933	5.25.1	Planned Key Date Completion Date - KD1B, DOU 2A	0 days	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days			
934	934	5.25.2	Planned Sectional Completion Date - Section 1, DOU 2A	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	942FF		
935	935	5.25.3	Planned Sectional Completion Date - Section 2, DOU 2A	0 days	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	0 days			
936	936	5.25.4	Selection of Plant and Materials	194 days	Mon 02/12/19	Fri 12/06/20	Mon 02/12/19	Fri 12/06/20	Mon 02/12/19	Fri 12/06/20	0 days			
937	937	5.25.4.1	DOU - activated carbon filter (DOU No. 2A, No. 3A, No. 3B), C11, ref. EQT028	194 days	Mon 02/12/19	Fri 12/06/20	Mon 02/12/19	Fri 12/06/20	Mon 02/12/19	Fri 12/06/20	0 days			
938	938	5.25.4.1.1	Submission for acceptance of purchasing package	120 days	Mon 02/12/19	Mon 30/03/20	Mon 02/12/19	Mon 30/03/20	Mon 02/12/19	Mon 30/03/20	0 days		939	
939	939	5.25.4.1.2	Invitation of quotations for purchasing package	60 days	Tue 31/03/20	Fri 29/05/20	Tue 31/03/20	Fri 29/05/20	Tue 31/03/20	Fri 29/05/20	0 days	938	940	
940	940	5.25.4.1.3	Acceptance of conforming quotation (Completed)	14 days	Sat 30/05/20	Fri 12/06/20	Sat 30/05/20	Fri 12/06/20	Sat 30/05/20	Fri 12/06/20	0 days	939	942,963,984	
941	941	5.25.5	Design Submissions for DOU No. 2A	200 days	Tue 01/09/20	Sat 20/03/21	Tue 01/09/20	Sat 20/03/21	Tue 01/09/20	Mon 12/07/21	115 days			
942	942	5.25.5.1	CDS007-2 - Detailed Design for Deodorisation System, DOU No. 2A	200 edays	Tue 01/09/20	Sat 20/03/21	Tue 01/09/20	Sat 20/03/21	Tue 01/09/20	Mon 12/07/21	0 edays	940	945,948,934FF	
943	943	5.25.6	Manufacturing and Delivery of Plant & Materials	345 days	Sat 20/03/21	Sun 27/02/22	Sat 20/03/21	Sun 27/02/22	Sun 17/07/22	Mon 26/06/23	484 days			
944	944	5.25.6.1	DOU 2A	345 days	Sat 20/03/21	Sun 27/02/22	Sat 20/03/21	Sun 27/02/22	Sun 17/07/22	Mon 26/06/23	484 days			
945	945	5.25.6.1.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Sat 20/03/21	Thu 13/01/22	Sat 20/03/21	Thu 13/01/22	Sun 17/07/22	Fri 12/05/23	0 days	942	946	
946	946	5.25.6.1.2	Shipping and Delivery of Plant to site	45 days	Fri 14/01/22	Sun 27/02/22	Fri 14/01/22	Sun 27/02/22	Sat 13/05/23	Mon 26/06/23	361 days	945	953	
947	947	5.25.6.2	FRP Air Ductwork	345 days	Sat 20/03/21	Sun 27/02/22	Sat 20/03/21	Sun 27/02/22	Sun 17/07/22	Mon 26/06/23	484 days			
948	948	5.25.6.2.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Sat 20/03/21	Thu 13/01/22	Sat 20/03/21	Thu 13/01/22	Sun 17/07/22	Fri 12/05/23	0 days	942	949	
949	949	5.25.6.2.2	Shipping and Delivery of Plant to site	45 days	Fri 14/01/22	Sun 27/02/22	Fri 14/01/22	Sun 27/02/22	Sat 13/05/23	Mon 26/06/23	361 days	948	953	
950	950	5.25.7	Tentative Civil Handover, DOU 2A (Rev. 5)	1 day	Thu 23/02/23	Thu 23/02/23	Thu 23/02/23	Thu 23/02/23	Thu 23/02/23	Thu 23/02/23	0 days			
951	951	5.25.8	Site Installation Work	231 days	Thu 23/02/23	Thu 12/10/23	Thu 23/02/23	Thu 12/10/23	Tue 27/06/23	Tue 13/02/24	123 days			
952	952	5.25.8.1	Commencement of E&M Installation at DOU 2A	231 days	Thu 23/02/23	Thu 12/10/23	Thu 23/02/23	Thu 12/10/23	Tue 27/06/23	Tue 13/02/24	123 days	570		
953	953	5.25.8.1.1	Mechanical Installations for DOU 2A	90 edays	Thu 23/02/23	Wed 24/05/23	Thu 23/02/23	Wed 24/05/23	Tue 27/06/23	Mon 25/09/23	0 edays	946,949	954	ME - F x 4~6 men
954	954	5.25.8.1.2	Electrical Installations for DOU 2A	90 edays	Wed 24/05/23	Tue 22/08/23	Wed 24/05/23	Tue 22/08/23	Mon 25/09/23	Sun 24/12/23	0 edays	953	955	EE - C x 4~6 men
955	955	5.25.8.1.3	Site Acceptance Test for E&M Equip for DOU 2A	30 edays	Tue 22/08/23	Thu 21/09/23	Tue 22/08/23	Thu 21/09/23	Sun 24/12/23	Tue 23/01/24	0 edays	974,975,954	956	
956	956	5.25.8.1.4	System Commissioning Test for DOU 2A	21 edays	Thu 21/09/23	Thu 12/10/23	Thu 21/09/23	Thu 12/10/23	Tue 23/01/24	Tue 13/02/24	118.63 ed...	955	1278	
957	957	5.26	Deodorization System, DOU 3A, Portion B7 & B-7B (PS 6B.2.6)	1313 days	Fri 28/08/20	Mon 01/04/24	Fri 28/08/20	Mon 01/04/24	Fri 28/08/20	Mon 01/04/24	0 days			
958	958	5.26.1	Planned Key Date Completion Date - KD1B, DOU 3A	0 days	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days	962FF		
959	959	5.26.2	Planned Sectional Completion Date - Section 1, DOU 3A	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	963FF		
960	960	5.26.3	Planned Sectional Completion Date - Section 2, DOU 3A	0 days	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	0 days			
961	961	5.26.4	Design Submissions for DOU No. 3A	234 days	Fri 28/08/20	Mon 19/04/21	Fri 28/08/20	Mon 19/04/21	Fri 28/08/20	Mon 12/07/21	85 days			
962	962	5.26.4.1	CDS081-8 - Civil and dimensional requirements drawings for DOU No. 3	200 days	Fri 28/08/20	Mon 15/03/21	Fri 28/08/20	Mon 15/03/21	Fri 28/08/20	Mon 15/03/21	0 days		958FF	
963	963	5.26.4.2	CDS007-3 - Detailed Design for Deodorisation System, DOU No. 3A	200 edays	Thu 01/10/20	Mon 19/04/21	Thu 01/10/20	Mon 19/04/21	Thu 01/10/20	Mon 12/07/21	0 edays	940	966,969,959FF	
964	964	5.26.5	Manufacturing and Delivery of Plant & Materials	225 days	Mon 19/04/21	Tue 30/11/21	Mon 19/04/21	Tue 30/11/21	Fri 13/01/23	Sat 26/08/23	634 days			
965	965	5.26.5.1	DOU 3A	225 days	Mon 19/04/21	Tue 30/11/21	Mon 19/04/21	Tue 30/11/21	Fri 13/01/23	Sat 26/08/23	634 days			
966	966	5.26.5.1.1	Manufacturing and Factory Acceptance Test of Plant	180 edays	Mon 19/04/21	Sat 16/10/21	Mon 19/04/21	Sat 16/10/21	Fri 13/01/23	Wed 12/07/23	0 edays	963	967	
967	967	5.26.5.1.2	Shipping and Delivery of Plant to Site	45 edays	Sat 16/10/21	Tue 30/11/21	Sat 16/10/21	Tue 30/11/21	Wed 12/07/23	Sat 26/08/23	0 edays	966	974	
968	968	5.26.5.2	FRP Air Ductwork	225 days	Mon 19/04/21	Tue 30/11/21	Mon 19/04/21	Tue 30/11/21	Fri 13/01/23	Sat 26/08/23	634 days			
969	969	5.26.5.2.1	Manufacturing and Factory Acceptance Test of Plant	180 edays	Mon 19/04/21	Sat 16/10/21	Mon 19/04/21	Sat 16/10/21	Fri 13/01/23	Wed 12/07/23	0 edays	963	970	
970	970	5.26.5.2.2	Shipping and Delivery of Plant to Site	45 edays	Sat 16/10/21	Tue 30/11/21	Sat 16/10/21	Tue 30/11/21	Wed 12/07/23	Sat 26/08/23	0 edays	969	974	
971	971	5.26.6	Tentative Civil Handover, DOU 3A (Rev. 5)	1 day	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	0 days			
972	972	5.26.7	Site Installation Work	171 days	Tue 30/11/21	Fri 20/05/22	Tue 30/11/21	Fri 20/05/22	Sat 26/08/23	Tue 13/02/24	634 days			
973	973	5.26.7.1	Commencement of E&M Installation at DOU 3A	171 days	Tue 30/11/21	Fri 20/05/22	Tue 30/11/21	Fri 20/05/22	Sat 26/08/23	Tue 13/02/24	634 days			
974	974	5.26.7.1.1	Mechanical Installations for DOU 3A	120 edays	Tue 30/11/21	Wed 30/03/22	Tue 30/11/21	Wed 30/03/22	Sat 26/08/23	Sun 24/12/23	0 edays	970,967	975SS+30 edays,976,955	ME - F x 4~6 men
975	975	5.26.7.1.2	Electrical Installations for DOU 3A	90 edays	Thu 30/12/21	Wed 30/03/22	Thu 30/12/21	Wed 30/03/22	Mon 25/09/23	Sun 24/12/23	0 edays	974SS+30 ec	976,955	EE - D x 4~6 men
976	976	5.26.7.1.3	Site Acceptance Test for E&M Equip for DOU 3A	30 edays	Wed 30/03/22	Fri 29/04/22	Wed 30/03/22	Fri 29/04/22	Sun 24/12/23	Tue 23/01/24	0 edays	974,975	977	
977	977	5.26.7.1.4	System Commissioning Test for DOU 3A	21 edays	Fri 29/04/22	Fri 20/05/22	Fri 29/04/22	Fri 20/05/22	Tue 23/01/24	Tue 13/02/24	629 edays	976	1278	
978	978	5.27	Deodorization System, DOU 3B, Portion B-5B (PS 6B.2.6)	1265 days	Thu 15/10/20	Mon 01/04/24	Thu 15/10/20	Mon 01/04/24	Thu 15/10/20	Mon 01/04/24	0 days			
979	979	5.27.1	Tentative Civil Handover Date, underground air pipework for DOU 3B (by	1 day	Wed 17/08/22	Wed 17/08/22	Wed 17/08/22	Wed 17/08/22	Fri 25/08/23	Fri 25/08/23	0 days		994FF+30 days,988SS-60	
980	980	5.27.2	Planned Key Date Completion Date - KD1B, DOU 3B	0 days	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days			
981	981	5.27.3	Planned Sectional Completion Date - Section 1, DOU 3B	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	984FF		
982	982	5.27.4	Planned Sectional Completion Date - Section 2, DOU 3B	0 days	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	0 days			
983	983	5.27.5	Design Submissions for DOU No. 3B	200 days	Thu 15/10/20	Mon 03/05/21	Thu 15/10/20	Mon 03/05/21	Thu 15/10/20	Mon 12/07/21	71 days			
984	984	5.27.5.1	CDS007-4 - Detailed Design for Deodorisation System, DOU No. 3B	200 edays	Thu 15/10/20	Mon 03/05/21	Thu 15/10/20	Mon 03/05/21	Thu 15/10/20	Mon 12/07/21	0 edays	940	987,990,981FF	
985	985	5.27.6	Manufacturing and Delivery of Plant & Materials	471 days	Mon 03/05/21	Wed 17/08/22	Mon 03/05/21	Wed 17/08/22	Thu 29/12/22	Sat 26/08/23	374 days			
986	986	5.27.6.1	DOU 3B	471 days	Mon 03/05/21	Wed 17/08/22	Mon 03/05/21	Wed 17/08/22	Thu 29/12/22	Sat 26/08/23	374 days			
987	987	5.27.6.1.1	Manufacturing and Factory Acceptance Test of Plant	180 edays	Mon 03/05/21	Sat 30/10/21	Mon 03/05/21	Sat 30/10/21	Thu 29/12/22	Tue 27/06/23	231 edays	984	988	
988	988	5.27.6.1.2	Shipping and Delivery of Plant to Site	60 edays	Sat 18/06/22	Wed 17/08/22	Sat 18/06/22	Wed 17/08/22	Tue 27/06/23	Sat 26/08/23	0 edays	987,979SS-6	994	
989	989	5.27.6.2	FRP Air Ductwork	456 days	Mon 03/05/21	Tue 02/08/22	Mon 03/05/21	Tue 02/08/22	Fri 13/01/23	Sat 26/08/23	389 days			
990	990	5.27.6.2.1	Manufacturing and Factory Acceptance Test of Plant	180 edays	Mon 03/05/21	Sat 30/10/21	Mon 03/05/21	Sat 30/10/21	Fri 13/01/23	Wed 12/07/23	231 edays	984	991	



Besttwise
Project: DE/2018/04
Date: 30/11/21

Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

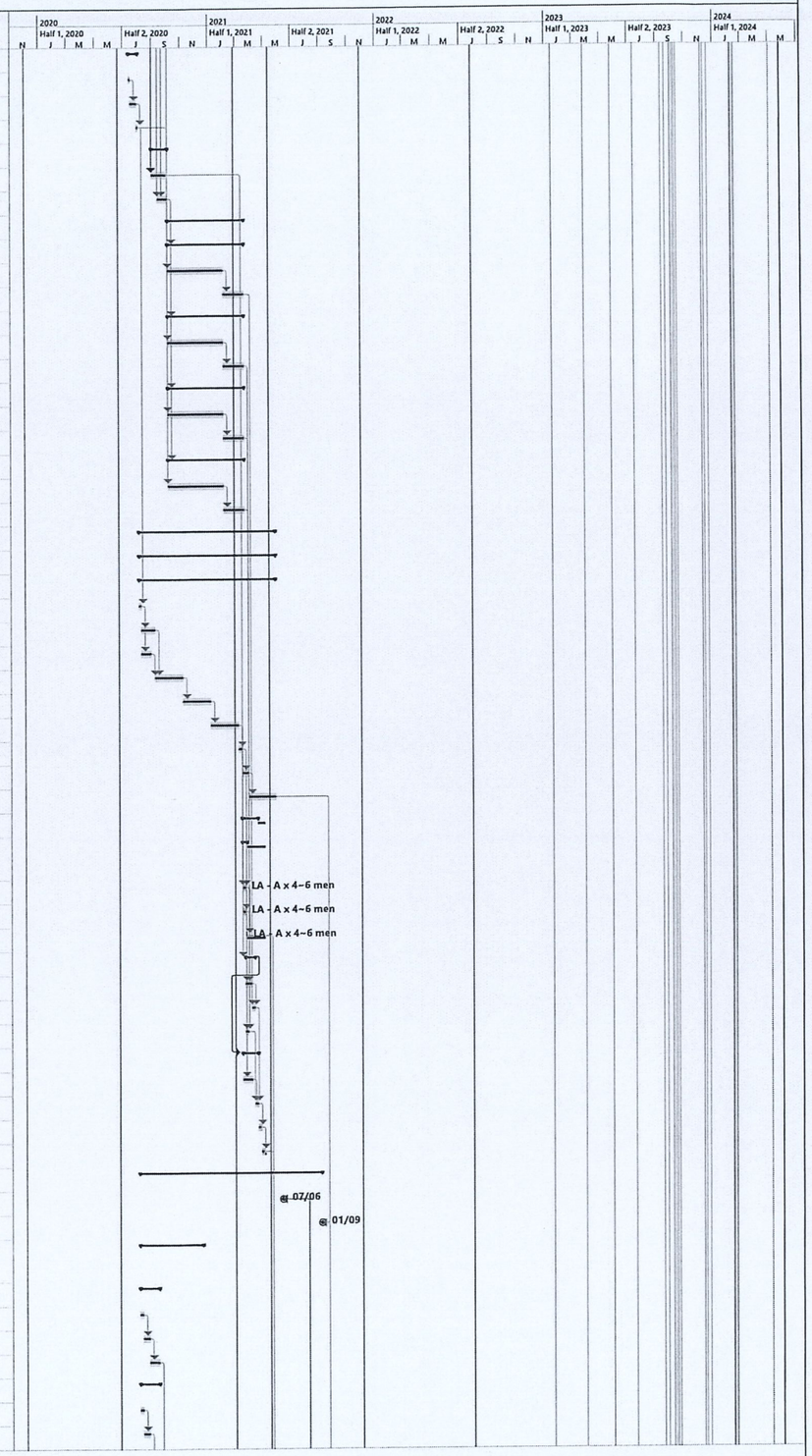
ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
991	991	5.27.6.2.2	Shipping and Delivery of Plant to Site	45 edays	Sat 18/06/22	Tue 02/08/22	Sat 18/06/22	Tue 02/08/22	Wed 12/07/23	Sat 26/08/23	15 edays	990,979SS-6	994	
992	992	5.27.7	Site Installation Work	171 days	Wed 17/08/22	Sat 04/02/23	Wed 17/08/22	Sat 04/02/23	Sat 26/08/23	Tue 13/02/24	374 days			
993	993	5.27.7.1	Commencement of E&M Installation at DOU 3B	171 days	Wed 17/08/22	Sat 04/02/23	Wed 17/08/22	Sat 04/02/23	Sat 26/08/23	Tue 13/02/24	374 days			
994	994	5.27.7.1.1	Mechanical Installations for DOU 3B	120 edays	Wed 17/08/22	Thu 15/12/22	Wed 17/08/22	Thu 15/12/22	Sat 26/08/23	Sun 24/12/23	0 edays	979FF+30 d	995SS+30 edays,996	ME - F x 4~6 men
995	995	5.27.7.1.2	Electrical Installations for DOU 3B	90 edays	Fri 16/09/22	Thu 15/12/22	Fri 16/09/22	Thu 15/12/22	Mon 25/09/23	Sun 24/12/23	0 edays	994SS+30 e	996	EE - D x 4~6 men
996	996	5.27.7.1.3	Site Acceptance Test for E&M Equip for DOU 3B	30 edays	Thu 15/12/22	Sat 14/01/23	Thu 15/12/22	Sat 14/01/23	Sun 24/12/23	Tue 23/01/24	0 edays	994,995	997	
997	997	5.27.7.1.4	System Commissioning Test for DOU 3B	21 edays	Sat 14/01/23	Sat 04/02/23	Sat 14/01/23	Sat 04/02/23	Tue 23/01/24	Tue 13/02/24	369 edays	996	1278	
998	998	5.28	Flowmeter and Valve Chambers, Portion B7 & B-7B (PS 6B.2.13)	1278 days	Sun 01/11/20	Wed 01/05/24	Sun 01/11/20	Wed 01/05/24	Sun 01/11/20	Wed 01/05/24	0 days			
999	999	5.28.1	Planned Key Date Completion Date - KD1B, Chambers	0 days	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days	1004FF		
1000	1000	5.28.2	Planned Sectional Completion Date - Section 1, Chambers	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	1005FF		
1001	1001	5.28.3	Planned Sectional Completion Date - Section 2, Chambers	0 days	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	0 days			
1002	1002	5.28.4	Planned Sectional Completion Date - Section 4, Chambers	0 days	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	0 days			
1003	1003	5.28.5	Design Submissions for Valve and Flowmeter Chambers	210 days	Sun 01/11/20	Sat 29/05/21	Sun 01/11/20	Sat 29/05/21	Sun 01/11/20	Sat 29/05/21	0 days			
1004	1004	5.28.5.1	CDS081-9 - Civil and dimensional requirements drawings for Valve and	90 days	Mon 01/03/21	Sat 29/05/21	Mon 01/03/21	Sat 29/05/21	Mon 01/03/21	Sat 29/05/21	0 days		999FF	
1005	1005	5.28.5.2	CDS018 - Detailed Design for Flowmeter and Valve Chambers	90 edays	Sun 01/11/20	Sat 30/01/21	Sun 01/11/20	Sat 30/01/21	Sun 01/11/20	Sat 30/01/21	0 edays		1007,1000FF	
1006	1006	5.28.6	Manufacturing and Delivery of Plant & Materials	225 days	Sat 30/01/21	Sat 11/09/21	Sat 30/01/21	Sat 11/09/21	Fri 03/02/23	Fri 15/09/23	734 days			
1007	1007	5.28.6.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Sat 30/01/21	Wed 28/07/21	Sat 30/01/21	Wed 28/07/21	Fri 03/02/23	Tue 01/08/23	0 days	1005	1008	
1008	1008	5.28.6.2	Shipping and Delivery of Plant to Site	45 days	Thu 29/07/21	Sat 11/09/21	Thu 29/07/21	Sat 11/09/21	Wed 02/08/23	Fri 15/09/23	0 days	1007	1012	
1009	1009	5.28.7	Tentative Civil Handover, Chambers (Rev. 5)	1 day	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	0 days			
1010	1010	5.28.8	Site Installation Work	150 days	Sun 12/09/21	Tue 08/02/22	Sun 12/09/21	Tue 08/02/22	Sat 16/09/23	Mon 12/02/24	734 days			
1011	1011	5.28.8.1	Commencement of Valves and Flowmeters Installation at Chambers	150 days	Sun 12/09/21	Tue 08/02/22	Sun 12/09/21	Tue 08/02/22	Sat 16/09/23	Mon 12/02/24	734 days			
1012	1012	5.28.8.1.1	Installation of valves and flowmeters	90 days	Sun 12/09/21	Fri 10/12/21	Sun 12/09/21	Fri 10/12/21	Sat 16/09/23	Thu 14/12/23	0 days	1008	1013	ME - C x 4~6 men
1013	1013	5.28.8.1.2	cables laying and terminations	60 days	Sat 11/12/21	Tue 08/02/22	Sat 11/12/21	Tue 08/02/22	Fri 15/12/23	Mon 12/02/24	729 days	1012	1278	EE - A x 4~6 men
1014	1014	5.29	Underground Pipework, Modification and Connection Works, Portion B-9B (PS 6B.2.22)	1161 days	Mon 01/03/21	Sat 04/05/24	Mon 01/03/21	Sat 04/05/24	Wed 03/03/21	Wed 01/05/24	0 days			
1015	1015	5.29.1	Planned Key Date Completion Date - KD1B, UU	0 days	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days	1019FF		
1016	1016	5.29.2	Planned Sectional Completion Date - Section 1, Underground Pipework	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	1020FF		
1017	1017	5.29.3	Planned Sectional Completion Date - Section 4, Underground Pipework	0 days	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	0 days	1030FF		
1018	1018	5.29.4	Design Submissions	90 days	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Sun 30/05/21	Wed 03/03/21	Mon 12/07/21	3 days			
1019	1019	5.29.4.1	CDS015 - Detailed Design for Underground Pipework Modification and	90 edays	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Sun 30/05/21	Wed 03/03/21	Tue 01/06/21	2.38 edays		1015FF	
1020	1020	5.29.4.2	CDS016 - Detailed Design for Temporary Pumping System for maintaini	50 edays	Mon 01/03/21	Tue 20/04/21	Mon 01/03/21	Tue 20/04/21	Sun 23/05/21	Mon 12/07/21	0 edays		1022,1016FF	
1021	1021	5.29.5	Manufacturing and Delivery of Plant & Materials	1079 days	Tue 20/04/21	Tue 02/04/24	Tue 20/04/21	Tue 02/04/24	Thu 07/09/23	Thu 18/04/24	16 days			
1022	1022	5.29.5.1	Manufacturing and Factory Acceptance Test of Plant	180 days	Tue 20/04/21	Sat 16/10/21	Tue 20/04/21	Sat 16/10/21	Thu 07/09/23	Mon 04/03/24	854 days	1020	1023	
1023	1023	5.29.5.2	Shipping and Delivery of Plant to Site	45 days	Sun 18/02/24	Tue 02/04/24	Sun 18/02/24	Tue 02/04/24	Tue 05/03/24	Thu 18/04/24	16 days	1022,1024S	1028	
1024	1024	5.29.6	Tentative Civil Handover, Road (Rev. 5)	1 day	Thu 18/04/24	Thu 18/04/24	Thu 18/04/24	Thu 18/04/24	Mon 15/04/24	Mon 15/04/24	0 days		1023SS-60 edays,1027	
1025	1025	5.29.7	Site Installation	16 days	Fri 19/04/24	Sat 04/05/24	Fri 19/04/24	Sat 04/05/24	Tue 16/04/24	Wed 01/05/24	0 days			
1026	1026	5.29.7.1	Commencement of underground pipework modification and connection wor	16 days	Fri 19/04/24	Sat 04/05/24	Fri 19/04/24	Sat 04/05/24	Tue 16/04/24	Wed 01/05/24	0 days			
1027	1027	5.29.7.1.1	Temporary Flow Diversion and Road Excavation Work	3 days	Fri 19/04/24	Sun 21/04/24	Fri 19/04/24	Sun 21/04/24	Tue 16/04/24	Thu 18/04/24	0 days	1024	1028	
1028	1028	5.29.7.1.2	Pipe Laying and connection works	7 days	Mon 22/04/24	Sun 28/04/24	Mon 22/04/24	Sun 28/04/24	Fri 19/04/24	Thu 25/04/24	0 days	1027,1023	1029	
1029	1029	5.29.7.1.3	Pressure Tests	3 days	Mon 29/04/24	Wed 01/05/24	Mon 29/04/24	Wed 01/05/24	Fri 26/04/24	Sun 28/04/24	0 days	1028	1030	
1030	1030	5.29.7.1.4	Make Good	3 days	Thu 02/05/24	Sat 04/05/24	Thu 02/05/24	Sat 04/05/24	Mon 29/04/24	Wed 01/05/24	0 days	1029	1017FF	
1031	1031	5.30	Temporary Filtrate Lifting Well and Eq. Tank, Portion B-3B (PS 6B.2.16)	450 days	Mon 02/03/20	Tue 25/05/21	Mon 02/03/20	Tue 25/05/21	Mon 02/03/20	Tue 25/05/21	0 days			
1032	1032	5.30.1	Selection of Suppliers for major plant and materials and Civil Subcontrac	196 days	Mon 02/03/20	Sun 13/09/20	Mon 02/03/20	Sun 13/09/20	Mon 02/03/20	Sun 13/09/20	0 days			
1033	1033	5.30.1.1	MIs - filtrate lift pumps and filtrate transfer pumps, C11, ref. EQT011	73 days	Mon 02/03/20	Wed 13/05/20	Mon 02/03/20	Wed 13/05/20	Mon 02/03/20	Wed 13/05/20	0 days			
1034	1034	5.30.1.1.1	Submission for acceptance of purchasing package	29 days	Mon 02/03/20	Mon 30/03/20	Mon 02/03/20	Mon 30/03/20	Mon 02/03/20	Mon 30/03/20	0 days		1035	
1035	1035	5.30.1.1.2	Invitation of quotations for purchasing package	30 days	Tue 31/03/20	Wed 29/04/20	Tue 31/03/20	Wed 29/04/20	Tue 31/03/20	Wed 29/04/20	0 days	1034	1036	
1036	1036	5.30.1.1.3	Acceptance of conforming quotation and acceptance for Manufacture (Com	14 days	Thu 30/04/20	Wed 13/05/20	Thu 30/04/20	Wed 13/05/20	Thu 30/04/20	Wed 13/05/20	0 days	1035	1055,1058	
1037	1037	5.30.1.2	MIs - Instrumentations	73 days	Mon 02/03/20	Wed 13/05/20	Mon 02/03/20	Wed 13/05/20	Mon 02/03/20	Wed 13/05/20	0 days			
1038	1038	5.30.1.2.1	Submission for acceptance of purchasing package	29 days	Mon 02/03/20	Mon 30/03/20	Mon 02/03/20	Mon 30/03/20	Mon 02/03/20	Mon 30/03/20	0 days		1039	
1039	1039	5.30.1.2.2	Invitation of quotations for purchasing package	30 days	Tue 31/03/20	Wed 29/04/20	Tue 31/03/20	Wed 29/04/20	Tue 31/03/20	Wed 29/04/20	0 days	1038	1040	
1040	1040	5.30.1.2.3	Acceptance of conforming quotation and acceptance for Manufactui	14 days	Thu 30/04/20	Wed 13/05/20	Thu 30/04/20	Wed 13/05/20	Thu 30/04/20	Wed 13/05/20	0 days	1039	1055,1061	
1041	1041	5.30.1.3	MIs - Pipework (To be provided by Mechanical Sub-Contactor)	42 days	Mon 03/08/20	Sun 13/09/20	Mon 03/08/20	Sun 13/09/20	Mon 03/08/20	Sun 13/09/20	0 days			
1042	1042	5.30.1.3.1	Submission for acceptance of purchasing package	7 days	Mon 03/08/20	Sun 09/08/20	Mon 03/08/20	Sun 09/08/20	Mon 03/08/20	Sun 09/08/20	0 days		1043	
1043	1043	5.30.1.3.2	Invitation of quotations for purchasing package	14 days	Mon 10/08/20	Sun 23/08/20	Mon 10/08/20	Sun 23/08/20	Mon 10/08/20	Sun 23/08/20	0 days	1042	1044	
1044	1044	5.30.1.3.3	Acceptance of conforming quotation and acceptance for Manufactui	21 days	Mon 24/08/20	Sun 13/09/20	Mon 24/08/20	Sun 13/09/20	Mon 24/08/20	Sun 13/09/20	0 days	1043	1055,1064	
1045	1045	5.30.1.4	MIs - Valve (To be provided by Mechanical Sub-Contractor)	42 days	Mon 03/08/20	Sun 13/09/20	Mon 03/08/20	Sun 13/09/20	Mon 03/08/20	Sun 13/09/20	0 days			
1046	1046	5.30.1.4.1	Submission for acceptance of purchasing package	7 days	Mon 03/08/20	Sun 09/08/20	Mon 03/08/20	Sun 09/08/20	Mon 03/08/20	Sun 09/08/20	0 days		1047	
1047	1047	5.30.1.4.2	Invitation of quotations for purchasing package	14 days	Mon 10/08/20	Sun 23/08/20	Mon 10/08/20	Sun 23/08/20	Mon 10/08/20	Sun 23/08/20	0 days	1046	1048	
1048	1048	5.30.1.4.3	Acceptance of conforming quotation and acceptance for Manufactui	21 days	Mon 24/08/20	Sun 13/09/20	Mon 24/08/20	Sun 13/09/20	Mon 24/08/20	Sun 13/09/20	0 days	1047	1055,1067	



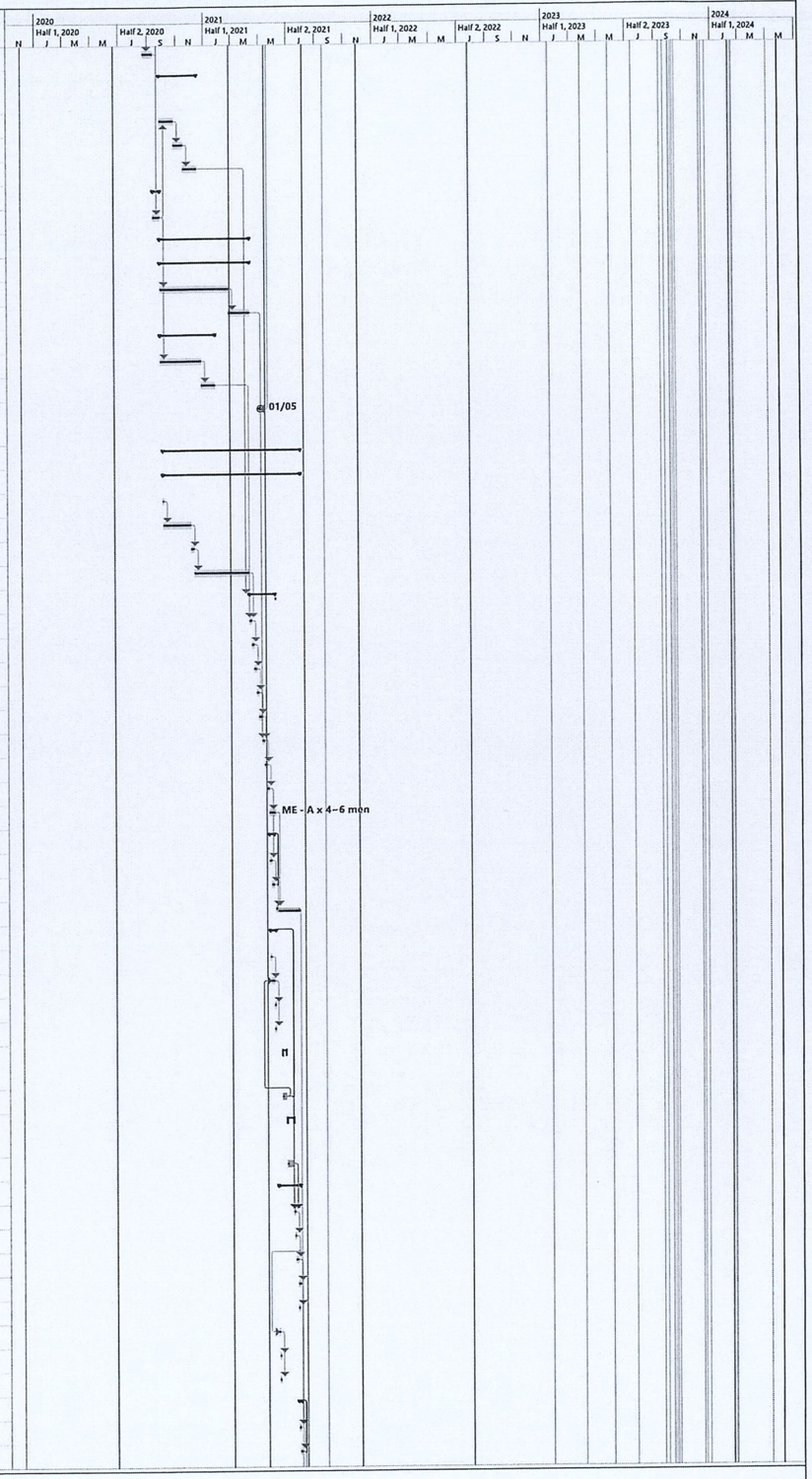
Bestwise
Project: DE/2018/04
Date: 30/11/21

Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

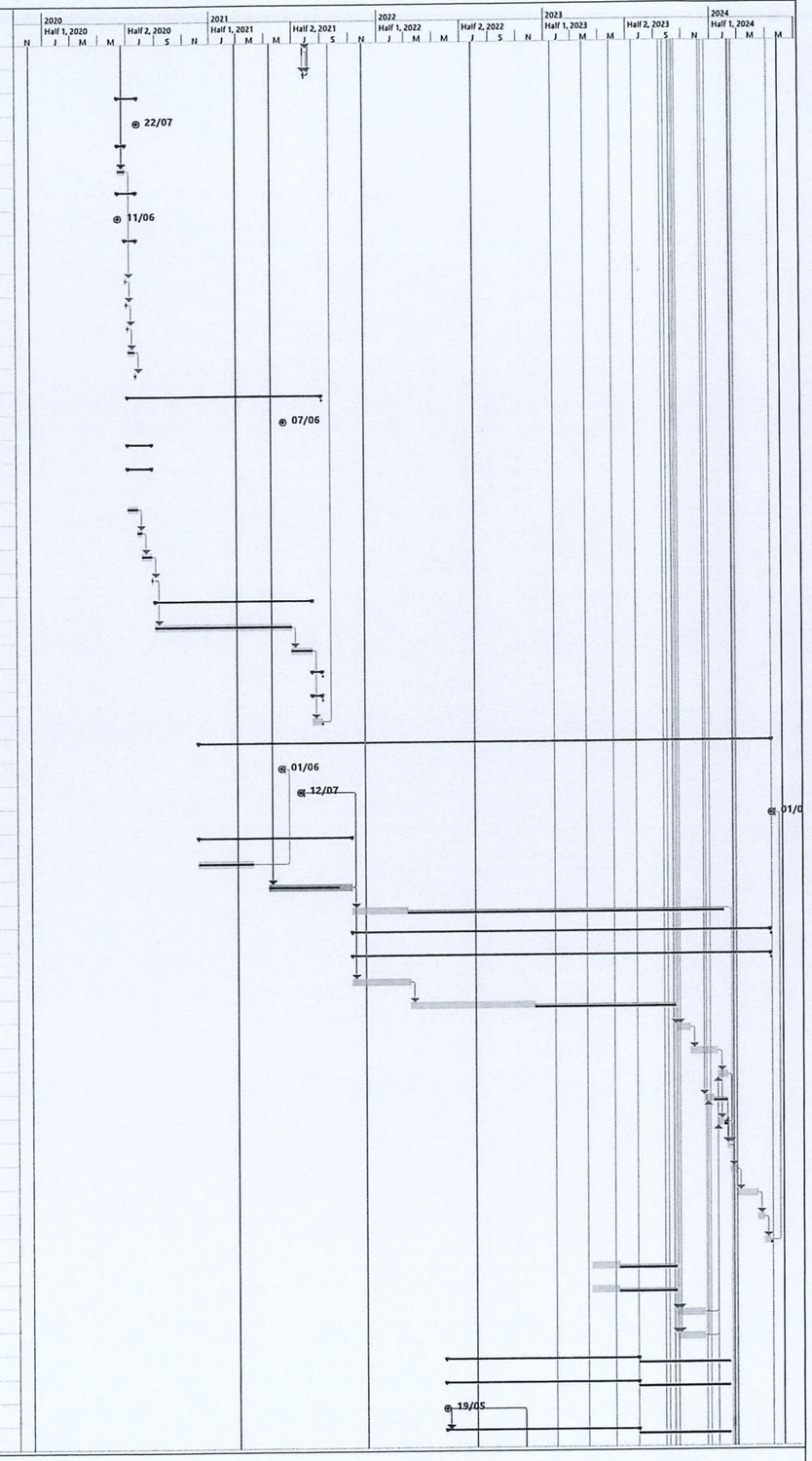
ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1049	1049	5.30.1.5	**Civil Work Subletting Package (Repeated WBS 5.13.17)**	19 days	Tue 14/07/20	Sat 01/08/20	Tue 14/07/20	Sat 01/08/20	Tue 14/07/20	Sat 01/08/20	0 days			
1050	1050	5.30.1.5.1	Submission for acceptance of subletting package	3 days	Tue 14/07/20	Thu 16/07/20	Tue 14/07/20	Thu 16/07/20	Tue 14/07/20	Thu 16/07/20	0 days		1051	
1051	1051	5.30.1.5.2	Invitation of tender for subletting package	14 days	Fri 17/07/20	Thu 30/07/20	Fri 17/07/20	Thu 30/07/20	Fri 17/07/20	Thu 30/07/20	0 days	1050	1052	
1052	1052	5.30.1.5.3	Acceptance of conforming quotation and acceptance for Manufactu	2 days	Fri 31/07/20	Sat 01/08/20	Fri 31/07/20	Sat 01/08/20	Fri 31/07/20	Sat 01/08/20	0 days	1051	1058,1061,1064,1067,10	
1053	1053	5.30.2	**Design Submissions for Temporary Filtrate Lifting Well and Eq. Tank**	34 days	Tue 01/09/20	Sun 04/10/20	Tue 01/09/20	Sun 04/10/20	Tue 01/09/20	Sun 04/10/20	0 days			
1054	1054	5.30.2.1	CDS050-S - Detailed Design for Lifting Appliances - Temp. Filtrate Eq. S	30 edays	Tue 01/09/20	Thu 01/10/20	Tue 01/09/20	Thu 01/10/20	Tue 01/09/20	Thu 01/10/20	0 edays	120	1083	
1055	1055	5.30.2.2	Design submission for E&M Installation works for temp. filtrate eq. syst	21 days	Mon 14/09/20	Sun 04/10/20	Mon 14/09/20	Sun 04/10/20	Mon 14/09/20	Sun 04/10/20	0 days	1036,1040,11	057,1063,1060,1066	
1056	1056	5.30.3	**Manufacturing and Delivery of Plant & Materials**	165 days	Mon 05/10/20	Thu 18/03/21	Mon 05/10/20	Thu 18/03/21	Mon 05/10/20	Thu 18/03/21	0 days			
1057	1057	5.30.3.1	**Filtrate Lift Pumps and Filtrate Transfer Pump, EQT011**	165 days	Mon 05/10/20	Thu 18/03/21	Mon 05/10/20	Thu 18/03/21	Mon 05/10/20	Thu 18/03/21	0 days	1055		
1058	1058	5.30.3.1.1	Manufacturing and Factory Acceptance Test of Plant	120 days	Mon 05/10/20	Mon 01/02/21	Mon 05/10/20	Mon 01/02/21	Mon 05/10/20	Mon 01/02/21	0 days	1052,1036	1059	
1059	1059	5.30.3.1.2	Shipping and Delivery of Plant to site (Delivered)	45 days	Tue 02/02/21	Thu 18/03/21	Tue 02/02/21	Thu 18/03/21	Tue 02/02/21	Thu 18/03/21	0 days	1058	1088	
1060	1060	5.30.3.2	**Instrumentations**	165 days	Mon 05/10/20	Thu 18/03/21	Mon 05/10/20	Thu 18/03/21	Mon 05/10/20	Thu 18/03/21	0 days	1055		
1061	1061	5.30.3.2.1	Manufacturing and Factory Acceptance Test of Plant	120 days	Mon 05/10/20	Mon 01/02/21	Mon 05/10/20	Mon 01/02/21	Mon 05/10/20	Mon 01/02/21	0 days	1052,1040	1062	
1062	1062	5.30.3.2.2	Shipping and Delivery of Plant to site	45 days	Tue 02/02/21	Thu 18/03/21	Tue 02/02/21	Thu 18/03/21	Tue 02/02/21	Thu 18/03/21	0 days	1061	1089	
1063	1063	5.30.3.3	**Pipework**	165 days	Mon 05/10/20	Thu 18/03/21	Mon 05/10/20	Thu 18/03/21	Mon 05/10/20	Thu 18/03/21	0 days	1055		
1064	1064	5.30.3.3.1	Manufacturing and Factory Acceptance Test of Plant	120 days	Mon 05/10/20	Mon 01/02/21	Mon 05/10/20	Mon 01/02/21	Mon 05/10/20	Mon 01/02/21	0 days	1052,1044	1065	
1065	1065	5.30.3.3.2	Shipping and Delivery of Plant to site	45 days	Tue 02/02/21	Thu 18/03/21	Tue 02/02/21	Thu 18/03/21	Tue 02/02/21	Thu 18/03/21	0 days	1064	1087	
1066	1066	5.30.3.4	**Valve**	165 days	Mon 05/10/20	Thu 18/03/21	Mon 05/10/20	Thu 18/03/21	Mon 05/10/20	Thu 18/03/21	0 days	1055		
1067	1067	5.30.3.4.1	Manufacturing and Factory Acceptance Test of Plant	120 days	Mon 05/10/20	Mon 01/02/21	Mon 05/10/20	Mon 01/02/21	Mon 05/10/20	Mon 01/02/21	0 days	1052,1048	1068	
1068	1068	5.30.3.4.2	Shipping and Delivery of Plant to site	45 days	Tue 02/02/21	Thu 18/03/21	Tue 02/02/21	Thu 18/03/21	Tue 02/02/21	Thu 18/03/21	0 days	1067	1087	
1069	1069	5.30.4	**Site Installation Work**	297 days	Sat 01/08/20	Tue 25/05/21	Sat 01/08/20	Tue 25/05/21	Sat 01/08/20	Tue 25/05/21	0 days			
1070	1070	5.30.4.1	**Commencement of Civil Construction and E&M Installation at Temp. I**	297 days	Sat 01/08/20	Tue 25/05/21	Sat 01/08/20	Tue 25/05/21	Sat 01/08/20	Tue 25/05/21	0 days			
1071	1071	5.30.4.1.1	**Civil Construction Work**	297 days	Sat 01/08/20	Tue 25/05/21	Sat 01/08/20	Tue 25/05/21	Sat 01/08/20	Tue 25/05/21	0 days			
1072	1072	5.30.4.1.1.1	Civil on-site survey and report submission for acceptance	5 edays	Sat 01/08/20	Thu 06/08/20	Sat 01/08/20	Thu 06/08/20	Sat 01/08/20	Thu 06/08/20	0 edays	1052	1073,1074	
1073	1073	5.30.4.1.1.2	Civil structural design and drawing submission for acceptance	30 days	Fri 07/08/20	Sat 05/09/20	Fri 07/08/20	Sat 05/09/20	Fri 07/08/20	Sat 05/09/20	0 days	1072	1075	
1074	1074	5.30.4.1.1.3	Site Clearance, UU diversion and construction of U-channel	21 days	Fri 07/08/20	Thu 27/08/20	Fri 07/08/20	Thu 27/08/20	Fri 07/08/20	Thu 27/08/20	0 days	1072	1075	
1075	1075	5.30.4.1.1.4	ELS (Sheeting and Excavation)	60 days	Sun 06/09/20	Wed 04/11/20	Sun 06/09/20	Wed 04/11/20	Sun 06/09/20	Wed 04/11/20	0 days	1074,1073	1076	
1076	1076	5.30.4.1.1.5	Grouting Works	60 days	Thu 05/11/20	Sun 03/01/21	Thu 05/11/20	Sun 03/01/21	Thu 05/11/20	Sun 03/01/21	0 days	1075	1077	
1077	1077	5.30.4.1.1.6	RC structure works including cast-in items	60 days	Mon 04/01/21	Thu 04/03/21	Mon 04/01/21	Thu 04/03/21	Mon 04/01/21	Thu 04/03/21	0 days	1076	1086,1083,1078	
1078	1078	5.30.4.1.1.7	Removal Formwork and Flasework	8 days	Fri 05/03/21	Fri 12/03/21	Fri 05/03/21	Fri 12/03/21	Fri 05/03/21	Fri 12/03/21	0 days	1077	1083,1084,1087,1089,10	
1079	1079	5.30.4.1.1.8	Waterproofing	14 days	Sat 13/03/21	Fri 26/03/21	Sat 13/03/21	Fri 26/03/21	Sat 13/03/21	Fri 26/03/21	0 days	1078	1080	
1080	1080	5.30.4.1.1.9	Other architectual works and finishing works	60 days	Sat 27/03/21	Tue 25/05/21	Sat 27/03/21	Tue 25/05/21	Sat 27/03/21	Tue 25/05/21	0 days	1079	1097FF	
1081	1081	5.30.4.1.2	**E&M Installation Work**	34 days	Sat 13/03/21	Thu 15/04/21	Sat 13/03/21	Thu 15/04/21	Sat 13/03/21	Sat 01/05/21	16 days			
1082	1082	5.30.4.1.2.	**Installation of Lifting Appliances at Temporary Filtrate Lifting Well and Eq. Tank**	10 days	Sat 13/03/21	Mon 22/03/21	Sat 13/03/21	Mon 22/03/21	Sat 13/03/21	Sat 01/05/21	40 days			
1083	1083	5.30.4.1.2.1	GF MR LA-09-01 SWL 1t	7 days	Sat 13/03/21	Fri 19/03/21	Sat 13/03/21	Fri 19/03/21	Sat 13/03/21	Wed 28/04/21	0 days	1077,1054,11	085	LA - A x 4~6 men
1084	1084	5.30.4.1.2.2	GF MR LA-09-02 SWL 1t	7 days	Sat 13/03/21	Fri 19/03/21	Sat 13/03/21	Fri 19/03/21	Sat 13/03/21	Wed 28/04/21	0 days	1078	1085	LA - A x 4~6 men
1085	1085	5.30.4.1.2.3	Site Acceptance test and loading test of LA	3 days	Sat 20/03/21	Mon 22/03/21	Sat 20/03/21	Mon 22/03/21	Thu 29/04/21	Sat 01/05/21	40 days	1083,1084	1120FF	LA - A x 4~6 men
1086	1086	5.30.4.1.2.	**Mechanical Installations for Temp. Filtrate Lifting Well and Eq. Ta**	21 days	Fri 19/03/21	Thu 08/04/21	Fri 19/03/21	Thu 08/04/21	Fri 19/03/21	Thu 08/04/21	0 days	1077	1090FS-30 days	
1087	1087	5.30.4.1.2.4	Installation of pipework, chemical pipework and valves, EQT03	14 days	Fri 19/03/21	Thu 01/04/21	Fri 19/03/21	Thu 01/04/21	Fri 19/03/21	Thu 01/04/21	0 days	1078,1065,11	088	ME - A x 4~6 men
1088	1088	5.30.4.1.2.5	Installation of pumps	7 days	Fri 02/04/21	Thu 08/04/21	Fri 02/04/21	Thu 08/04/21	Fri 02/04/21	Thu 08/04/21	0 days	1087,1059	1092	ME - A x 4~6 men
1089	1089	5.30.4.1.2.6	Installation of instrumentations, EQT035-3	7 days	Fri 19/03/21	Thu 25/03/21	Fri 19/03/21	Thu 25/03/21	Fri 19/03/21	Thu 25/03/21	0 days	1078,1062	1092	ME - A x 4~6 men
1090	1090	5.30.4.1.2.	**Electrical Installations for Temp. Filtrate Lifting Well and Eq. Tan**	34 days	Sat 13/03/21	Thu 15/04/21	Sat 13/03/21	Thu 15/04/21	Sat 13/03/21	Thu 15/04/21	0 days	1086FS-30 d		
1091	1091	5.30.4.1.2.7	Installation of cable trays and cable containments	21 days	Sat 13/03/21	Fri 02/04/21	Sat 13/03/21	Fri 02/04/21	Sat 13/03/21	Fri 02/04/21	0 days	1078	1092	EE - A x 4~6 men
1092	1092	5.30.4.1.2.8	Cables laying and terminations	7 days	Fri 09/04/21	Thu 15/04/21	Fri 09/04/21	Thu 15/04/21	Fri 09/04/21	Thu 15/04/21	0 days	1091,1088,11	093	EE - A x 4~6 men
1093	1093	5.30.4.1.3	Site Acceptance Test for E&M Equip at Filtrate Lifting Well and Eq. Ta	7 days	Fri 16/04/21	Thu 22/04/21	Fri 16/04/21	Thu 22/04/21	Fri 16/04/21	Mon 26/04/21	0 days	1092	1094	
1094	1094	5.30.4.1.4	System Commissioning for E&M Equip at Temp. Filtrate Lifting Well a	7 days	Fri 23/04/21	Thu 29/04/21	Fri 23/04/21	Thu 29/04/21	Fri 23/04/21	Sat 01/05/21	2 days	1093	1120FF	
1095	1095	5.31	**Existing PST No. 4 and No. 6, Portion B-3A (PS 6B.2.15)**	397 days	Sat 01/08/20	Wed 01/09/21	Sat 01/08/20	Wed 01/09/21	Sat 01/08/20	Wed 01/09/21	0 days			
1096	1096	5.31.1	**Planned Key Date Completion Date - KD3B**	0 days	Mon 07/06/21	Mon 07/06/21	Mon 07/06/21	Mon 07/06/21	Mon 07/06/21	Mon 07/06/21	0 days	1163FF		
1097	1097	5.31.2	**Planned Sectional Completion Date - Section 3, PST No. 4 and No. 6**	0 days	Wed 01/09/21	Wed 01/09/21	Wed 01/09/21	Wed 01/09/21	Wed 01/09/21	Wed 01/09/21	0 days	1080FF,1185		
1098	1098	5.31.3	**Selection of Suppliers for major plant and materials and Subcontractor for PST No. 4 and No. 6**	137 days	Sat 01/08/20	Tue 15/12/20	Sat 01/08/20	Tue 15/12/20	Sat 01/08/20	Tue 15/12/20	0 days			
1099	1099	5.31.3.1	**MIs - Rotating Bridge Scrapers and associated materials, C11, ref. EQT037-1**	42 days	Sat 01/08/20	Fri 11/09/20	Sat 01/08/20	Fri 11/09/20	Sat 01/08/20	Fri 11/09/20	0 days			
1100	1100	5.31.3.1.1	Submission for acceptance of purchasing package	7 days	Sat 01/08/20	Fri 07/08/20	Sat 01/08/20	Fri 07/08/20	Sat 01/08/20	Fri 07/08/20	0 days		1101	
1101	1101	5.31.3.1.2	Invitation of quotations for purchasing package	14 days	Sat 08/08/20	Fri 21/08/20	Sat 08/08/20	Fri 21/08/20	Sat 08/08/20	Fri 21/08/20	0 days	1100	1102	
1102	1102	5.31.3.1.3	Acceptance of conforming quotation (Completed)	21 days	Sat 22/08/20	Fri 11/09/20	Sat 22/08/20	Fri 11/09/20	Sat 22/08/20	Fri 11/09/20	0 days	1101	1112	
1103	1103	5.31.3.2	**MIs - Pipework, C11, ref. EQT037-2**	42 days	Sat 01/08/20	Fri 11/09/20	Sat 01/08/20	Fri 11/09/20	Sat 01/08/20	Fri 11/09/20	0 days			
1104	1104	5.31.3.2.1	Submission for acceptance of purchasing package	7 days	Sat 01/08/20	Fri 07/08/20	Sat 01/08/20	Fri 07/08/20	Sat 01/08/20	Fri 07/08/20	0 days		1105	
1105	1105	5.31.3.2.2	Invitation of quotations for purchasing package	14 days	Sat 08/08/20	Fri 21/08/20	Sat 08/08/20	Fri 21/08/20	Sat 08/08/20	Fri 21/08/20	0 days	1104	1106	



ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1106	1106	5.31.3.2.3	Acceptance of conforming quotation (Completed)	21 days	Sat 22/08/20	Fri 11/09/20	Sat 22/08/20	Fri 11/09/20	Sat 22/08/20	Fri 11/09/20	0 days	1105	1112	
1107	1107	5.31.3.3	Subletting of Electrical and Mechanical Installation Work w/ supply of LCP	81 days	Sat 26/09/20	Tue 15/12/20	Sat 26/09/20	Tue 15/12/20	Sat 26/09/20	Tue 15/12/20	0 days			
1108	1108	5.31.3.3.1	Submission for Subletting Package	30 days	Sat 26/09/20	Sun 25/10/20	Sat 26/09/20	Sun 25/10/20	Sat 26/09/20	Sun 25/10/20	0 days	1112	1109	
1109	1109	5.31.3.3.2	Invitation to tender	21 days	Mon 26/10/20	Sun 15/11/20	Mon 26/10/20	Sun 15/11/20	Mon 26/10/20	Sun 15/11/20	0 days	1108	1110	
1110	1110	5.31.3.3.3	Acceptance of conforming tender (Completed)	30 days	Mon 16/11/20	Tue 15/12/20	Mon 16/11/20	Tue 15/12/20	Mon 16/11/20	Tue 15/12/20	0 days	1109	1127	
1111	1111	5.31.4	Design Submissions	14 days	Sat 12/09/20	Fri 25/09/20	Sat 12/09/20	Fri 25/09/20	Sat 12/09/20	Fri 25/09/20	0 days			
1112	1112	5.31.4.1	Design submissions for retrofitting the existing PST No. 4 and No. 6	14 days	Sat 12/09/20	Fri 25/09/20	Sat 12/09/20	Fri 25/09/20	Sat 12/09/20	Fri 25/09/20	0 days	1102,1106	1115,1118,1108	
1113	1113	5.31.5	Manufacturing and Delivery of Plant & Materials	195 days	Sat 26/09/20	Thu 08/04/21	Sat 26/09/20	Thu 08/04/21	Sat 26/09/20	Thu 08/04/21	0 days			
1114	1114	5.31.5.1	Rotating Bridge Scrapers and associated materials	195 days	Sat 26/09/20	Thu 08/04/21	Sat 26/09/20	Thu 08/04/21	Sat 26/09/20	Thu 08/04/21	0 days			
1115	1115	5.31.5.1.1	Manufacturing and Factory Acceptance Test of Plant	150 days	Sat 26/09/20	Mon 22/02/21	Sat 26/09/20	Mon 22/02/21	Sat 26/09/20	Mon 22/02/21	0 days	1112	1116	
1116	1116	5.31.5.1.2	Shipping and Delivery of Plant to site (Rev. 8)	45 days	Tue 23/02/21	Thu 08/04/21	Tue 23/02/21	Thu 08/04/21	Tue 23/02/21	Thu 08/04/21	0 days	1115	1133	
1117	1117	5.31.5.2	Pipework	120 days	Sat 26/09/20	Sat 23/01/21	Sat 26/09/20	Sat 23/01/21	Sat 26/09/20	Sat 23/01/21	0 days			
1118	1118	5.31.5.2.1	Manufacturing and Factory Acceptance Test of Plant	90 days	Sat 26/09/20	Thu 24/12/20	Sat 26/09/20	Thu 24/12/20	Sat 26/09/20	Thu 24/12/20	0 days	1112	1119	
1119	1119	5.31.5.2.2	Shipping and Delivery of Plant to site	30 days	Fri 25/12/20	Sat 23/01/21	Fri 25/12/20	Sat 23/01/21	Fri 25/12/20	Sat 23/01/21	0 days	1118	1128	
1120	1120	5.31.6	Tentative Civil Handover, Filtrate Lifting Well and Eq. Tank (Completion of work)	1 day	Sat 01/05/21	Sat 01/05/21	Sat 01/05/21	Sat 01/05/21	Sat 01/05/21	Sat 01/05/21	0 days	1094FF,1085		
1121	1121	5.31.7	Site Installation Work	300 days	Thu 01/10/20	Tue 27/07/21	Thu 01/10/20	Tue 27/07/21	Thu 01/10/20	Tue 27/07/21	0 days			
1122	1122	5.31.7.1	Commencement of retrofitting the existing PST No. 4 and No. 6	300 days	Thu 01/10/20	Tue 27/07/21	Thu 01/10/20	Tue 27/07/21	Thu 01/10/20	Tue 27/07/21	0 days			
1123	1123	5.31.7.1.1	Temporary flow diversion of Filtrate from PST No. 4,	1 day	Thu 01/10/20	Thu 01/10/20	Thu 01/10/20	Thu 01/10/20	Thu 01/10/20	Thu 01/10/20	0 days		1124	
1124	1124	5.31.7.1.2	Dismantle and Removal of E&M Equipment at PST No. 6	60 days	Fri 02/10/20	Mon 30/11/20	Fri 02/10/20	Mon 30/11/20	Fri 02/10/20	Mon 30/11/20	0 days	1123	1125	
1125	1125	5.31.7.1.3	Temporary flow diversion of Filtrate from PST No. 6	7 days	Tue 01/12/20	Mon 07/12/20	Tue 01/12/20	Mon 07/12/20	Tue 01/12/20	Mon 07/12/20	0 days	1124	1126	
1126	1126	5.31.7.1.4	Dismantle and Removal of E&M Equipment at PST No. 4	119 days	Tue 08/12/20	Mon 05/04/21	Tue 08/12/20	Mon 05/04/21	Tue 08/12/20	Mon 05/04/21	0 days	1125	1128	
1127	1127	5.31.7.1.5	Mechanical Installations of existing PSTs No. 4 (Completed)	56 days	Tue 06/04/21	Mon 31/05/21	Tue 06/04/21	Mon 31/05/21	Tue 06/04/21	Thu 03/06/21	2.5 days	1110		
1128	1128	5.31.7.1.5.1	Installation of PST Influent feed pipe	5 days	Tue 06/04/21	Sat 10/04/21	Tue 06/04/21	Sat 10/04/21	Tue 06/04/21	Sat 10/04/21	0 days	1126,1119	1129	ME - A x 4~6 men
1129	1129	5.31.7.1.5.2	Installation of circular baffle diffuser box	5 days	Sun 11/04/21	Thu 15/04/21	Sun 11/04/21	Thu 15/04/21	Sun 11/04/21	Thu 15/04/21	0 days	1128	1130	ME - A x 4~6 men
1130	1130	5.31.7.1.5.3	Installation of scum baffle plates	5 days	Fri 16/04/21	Tue 20/04/21	Fri 16/04/21	Tue 20/04/21	Fri 16/04/21	Tue 20/04/21	0 days	1129	1131	ME - A x 4~6 men
1131	1131	5.31.7.1.5.4	Installation of scum box with collection valve and pipework	5 days	Wed 21/04/21	Sun 25/04/21	Wed 21/04/21	Sun 25/04/21	Wed 21/04/21	Sun 25/04/21	0 days	1130	1132	ME - A x 4~6 men
1132	1132	5.31.7.1.5.5	Installation of v-notched weir plate	7 days	Mon 26/04/21	Sun 02/05/21	Mon 26/04/21	Sun 02/05/21	Mon 26/04/21	Sun 02/05/21	0 days	1131	1133	ME - A x 4~6 men
1133	1133	5.31.7.1.5.6	Installation of center bearing and slip ring assembly for rotating bridge	5 days	Mon 03/05/21	Fri 07/05/21	Mon 03/05/21	Fri 07/05/21	Mon 03/05/21	Fri 07/05/21	0 days	1132,1116	1134	ME - A x 4~6 men
1134	1134	5.31.7.1.5.7	Installation of motor and gearbox assembly for rotating bridge	5 days	Sat 08/05/21	Wed 12/05/21	Sat 08/05/21	Wed 12/05/21	Sat 08/05/21	Wed 12/05/21	0 days	1133	1135	ME - A x 4~6 men
1135	1135	5.31.7.1.5.8	Installation of rotating bridge sludge and scum scraper assembly	5 days	Thu 13/05/21	Mon 17/05/21	Thu 13/05/21	Mon 17/05/21	Thu 13/05/21	Mon 17/05/21	0 days	1134	1136,1138	ME - A x 4~6 men
1136	1136	5.31.7.1.5.9	installation of removable FRP covers for effluent channel	14 days	Tue 18/05/21	Mon 31/05/21	Tue 18/05/21	Mon 31/05/21	Tue 18/05/21	Thu 03/06/21	0 days	1135	1140	ME - A x 4~6 men
1137	1137	5.31.7.1.6	Electrical Installations of existing PST No. 4	10 days	Tue 18/05/21	Thu 27/05/21	Tue 18/05/21	Thu 27/05/21	Tue 18/05/21	Thu 27/05/21	0 days		1140	
1138	1138	5.31.7.1.6.1	Installation of local control panels	5 days	Tue 18/05/21	Sat 22/05/21	Tue 18/05/21	Sat 22/05/21	Tue 18/05/21	Sat 22/05/21	0 days	1135	1139	EE - A x 4~6 men
1139	1139	5.31.7.1.6.2	cable laying and terminations	5 days	Sun 23/05/21	Thu 27/05/21	Sun 23/05/21	Thu 27/05/21	Sun 23/05/21	Thu 27/05/21	0 days	1138	1140	EE - A x 4~6 men
1140	1140	5.31.7.1.7	Site Acceptance Test for E&M Equip at existing PST No. 4	5 days	Tue 01/06/21	Sat 05/06/21	Tue 01/06/21	Sat 05/06/21	Tue 01/06/21	Mon 26/07/21	49 days	1137,1136,11	1163	
1141	1141	5.31.7.1.8	CNE-0229 - Removal of accumulated sludge inside PST No. 6	12 days	Wed 19/05/21	Sun 30/05/21	Wed 19/05/21	Sun 30/05/21	Wed 19/05/21	Sun 30/05/21	0 days		1151	
1142	1142	5.31.7.1.8.1	Filtrate divserion to Temporary Filtrate Equalisation Tank	2 days	Wed 19/05/21	Thu 20/05/21	Wed 19/05/21	Thu 20/05/21	Wed 19/05/21	Thu 20/05/21	0 days		1143	
1143	1143	5.31.7.1.8.2	Removal of floating scum / sludge inside PST No. 6	7 days	Fri 21/05/21	Thu 27/05/21	Fri 21/05/21	Thu 27/05/21	Fri 21/05/21	Thu 27/05/21	0 days	1142,1147	1144,1145	
1144	1144	5.31.7.1.8.3	Clearance of blockage of PST No. 6 drain pipe	3 days	Fri 28/05/21	Sun 30/05/21	Fri 28/05/21	Sun 30/05/21	Fri 28/05/21	Sun 30/05/21	0 days	1143		
1145	1145	5.31.7.1.8.4	Retrofiting Concrete Structure of PST No. 6	3 days	Fri 28/05/21	Sun 30/05/21	Fri 28/05/21	Sun 30/05/21	Fri 28/05/21	Sun 30/05/21	0 days	1143		
1146	1146	5.31.7.1.9	NCE-007 - Additional Contract Requirements for provision ICE's Certificates (RSE) on re-use of existing materials	8 days	Mon 14/06/21	Mon 21/06/21	Mon 14/06/21	Mon 21/06/21	Mon 14/06/21	Mon 21/06/21	0 days			
1147	1147	5.31.7.1.9.1	Provision of ICE's Certificate	8 days	Mon 14/06/21	Mon 21/06/21	Mon 14/06/21	Mon 21/06/21	Mon 14/06/21	Mon 21/06/21	0 days		1143,1151	
1148	1148	5.31.7.1.10	NCE-008 - Additional Contract Requirements for provision ICE's Certificates on product design of E&M plant and materials.	14 days	Thu 24/06/21	Wed 07/07/21	Thu 24/06/21	Wed 07/07/21	Thu 24/06/21	Wed 07/07/21	0 days			
1149	1149	5.31.7.1.10	Provision of ICE's Certificate	14 days	Thu 24/06/21	Wed 07/07/21	Thu 24/06/21	Wed 07/07/21	Thu 24/06/21	Wed 07/07/21	0 days		1151	
1150	1150	5.31.7.1.11	Mechanical Installations of existing PST No. 6	48 days	Fri 04/06/21	Wed 21/07/21	Fri 04/06/21	Wed 21/07/21	Fri 04/06/21	Wed 21/07/21	0 days			
1151	1151	5.31.7.1.11	Installation of PST influent feed pipe	2 days	Thu 08/07/21	Fri 09/07/21	Thu 08/07/21	Fri 09/07/21	Thu 08/07/21	Fri 09/07/21	0 days	1141,1147,11	1152	ME - A x 4~6 men
1152	1152	5.31.7.1.11	Installation of center bearing and slip ring assembly for rotating br	2 days	Sat 10/07/21	Sun 11/07/21	Sat 10/07/21	Sun 11/07/21	Sat 10/07/21	Sun 11/07/21	0 days	1151	1153,1156	ME - A x 4~6 men
1153	1153	5.31.7.1.11	Installation of motor and gearbox assembly for rotating bridge	5 days	Mon 12/07/21	Fri 16/07/21	Mon 12/07/21	Fri 16/07/21	Mon 12/07/21	Fri 16/07/21	0 days	1152	1160,1154,1155	ME - A x 4~6 men
1154	1154	5.31.7.1.11	Installation of rotating bridge sludge and scum scraper assembly	5 days	Sat 17/07/21	Wed 21/07/21	Sat 17/07/21	Wed 21/07/21	Sat 17/07/21	Wed 21/07/21	0 days	1153		ME - A x 4~6 men
1155	1155	5.31.7.1.11	Installation of circular baffle diffuser box	2 days	Sat 17/07/21	Sun 18/07/21	Sat 17/07/21	Sun 18/07/21	Sat 17/07/21	Sun 18/07/21	0 days	1153		ME - A x 4~6 men
1156	1156	5.31.7.1.11	Installation of v-notched weir plate	2 days	Fri 04/06/21	Sat 05/06/21	Fri 04/06/21	Sat 05/06/21	Fri 04/06/21	Sat 05/06/21	0 days	1152	1157,1158	ME - A x 4~6 men
1157	1157	5.31.7.1.11	Installation of scum baffle plates	2 days	Sun 06/06/21	Mon 07/06/21	Sun 06/06/21	Mon 07/06/21	Sun 06/06/21	Mon 07/06/21	0 days	1156		ME - A x 4~6 men
1158	1158	5.31.7.1.11	Installation of scum collection box	2 days	Sun 06/06/21	Mon 07/06/21	Sun 06/06/21	Mon 07/06/21	Sun 06/06/21	Mon 07/06/21	0 days	1156		ME - A x 4~6 men
1159	1159	5.31.7.1.12	Electrical Installations of existing PSTs No. 6	6 days	Sat 17/07/21	Thu 22/07/21	Sat 17/07/21	Thu 22/07/21	Sat 17/07/21	Thu 22/07/21	0 days		1162	
1160	1160	5.31.7.1.12	Installation of local control panels	3 days	Sat 17/07/21	Mon 19/07/21	Sat 17/07/21	Mon 19/07/21	Sat 17/07/21	Mon 19/07/21	0 days	1153	1161	
1161	1161	5.31.7.1.12	cable laying and terminations	3 days	Tue 20/07/21	Thu 22/07/21	Tue 20/07/21	Thu 22/07/21	Tue 20/07/21	Thu 22/07/21	0 days	1160	1162	



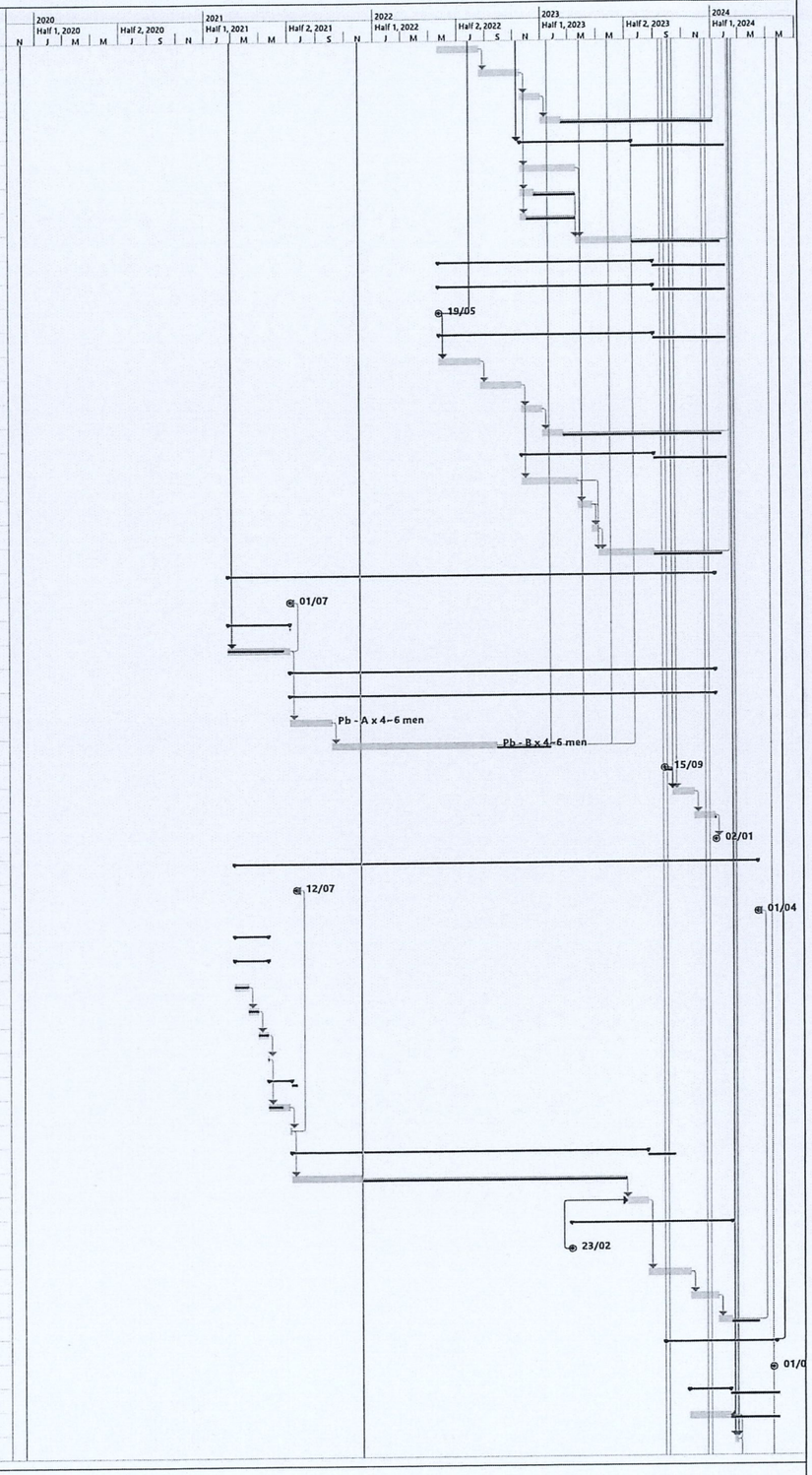
ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1162	1162	5.31.7.1.13	Site Acceptance Test for E&M Equip at existing PST No. 6	2 days	Fri 23/07/21	Sat 24/07/21	Fri 23/07/21	Sat 24/07/21	Sat 24/07/21	Mon 26/07/21	0 days	1159,1161	1163	
1163	1163	5.31.7.1.14	System Commissioning for E&M Equip at existing PST No. 4 and No. 6	3 days	Sun 25/07/21	Tue 27/07/21	Sun 25/07/21	Tue 27/07/21	Sun 25/07/21	Tue 27/07/21	0 days	1140,1162	1096FF	
1164	1164	5.32	**Existing Main Power House Electrical, Portion B-7A and B-7B (PS 6B.3.17)**	42 days	Thu 11/06/20	Wed 22/07/20	Thu 11/06/20	Wed 22/07/20	Thu 11/06/20	Wed 22/07/20	0 days			
1165	1165	5.32.1	Planned Key Date Completion Date - KD3A	0 days	Wed 22/07/20	Wed 22/07/20	Wed 22/07/20	Wed 22/07/20	Wed 22/07/20	Wed 22/07/20	0 days			
1166	1166	5.32.2	**Design Submissions for Existing Emergency Generator House**	15 days	Fri 12/06/20	Fri 26/06/20	Fri 12/06/20	Fri 26/06/20	Fri 12/06/20	Fri 26/06/20	0 days			
1167	1167	5.32.2.1	Design submissions for E&M installation works of existing power house	15 days	Fri 12/06/20	Fri 26/06/20	Fri 12/06/20	Fri 26/06/20	Fri 12/06/20	Fri 26/06/20	0 days	188	1171	
1168	1168	5.32.3	**Site Installation Work**	39 days	Thu 11/06/20	Sun 19/07/20	Thu 11/06/20	Sun 19/07/20	Thu 11/06/20	Sun 19/07/20	0 days			
1169	1169	5.32.3.1	Tentative Civil Handover Date, Portion B-7A & 7B area for modification of exist	1 day	Thu 11/06/20	Thu 11/06/20	Thu 11/06/20	Thu 11/06/20	Thu 11/06/20	Thu 11/06/20	0 days			
1170	1170	5.32.3.2	Commencement of Modification of existing emergency generator Electrical Works	23 days	Sat 27/06/20	Sun 19/07/20	Sat 27/06/20	Sun 19/07/20	Sat 27/06/20	Sun 19/07/20	0 days			
1171	1171	5.32.3.2.1	Site survey and preparation work	1 day	Sat 27/06/20	Sat 27/06/20	Sat 27/06/20	Sat 27/06/20	Sat 27/06/20	Sat 27/06/20	0 days	1167	1172	
1172	1172	5.32.3.2.2	Modification of existing emergency generator electrical works	3 days	Sun 28/06/20	Tue 30/06/20	Sun 28/06/20	Tue 30/06/20	Sun 28/06/20	Tue 30/06/20	0 days	1171	1173	
1173	1173	5.32.3.2.3	Test the new switchboard for on-site mobile generator	2 days	Wed 01/07/20	Thu 02/07/20	Wed 01/07/20	Thu 02/07/20	Wed 01/07/20	Thu 02/07/20	0 days	1172	1174	
1174	1174	5.32.3.2.4	Dismantling and removal the existing power & control cables	14 days	Fri 03/07/20	Thu 16/07/20	Fri 03/07/20	Thu 16/07/20	Fri 03/07/20	Thu 16/07/20	0 days	1173	1175	
1175	1175	5.32.3.2.5	Take down existing generator to DSD (Completed)	3 days	Fri 17/07/20	Sun 19/07/20	Fri 17/07/20	Sun 19/07/20	Fri 17/07/20	Sun 19/07/20	0 days	1174		
1176	1176	5.33	**Existing Sludge Press House, Portion B-10 (PS 6B.2.11)**	425 days	Wed 01/07/20	Sun 29/08/21	Wed 01/07/20	Sun 29/08/21	Wed 01/07/20	Wed 01/09/21	3 days			
1177	1177	5.33.1	Planned Key Date Completion Date - KD3B	0 days	Mon 07/06/21	Mon 07/06/21	Mon 07/06/21	Mon 07/06/21	Mon 07/06/21	Mon 07/06/21	0 days			
1178	1178	5.33.2	**Selection of Suppliers for major plant and materials for Filter Presses**	52 days	Wed 01/07/20	Fri 21/08/20	Wed 01/07/20	Fri 21/08/20	Wed 01/07/20	Fri 21/08/20	0 days			
1179	1179	5.33.2.1	Mis - new replacement filter plates and provision of filter cloths, C11, ref. EQT038	52 days	Wed 01/07/20	Fri 21/08/20	Wed 01/07/20	Fri 21/08/20	Wed 01/07/20	Fri 21/08/20	0 days			
1180	1180	5.33.2.1.1	Submission for acceptance of purchasing package	21 days	Wed 01/07/20	Tue 21/07/20	Wed 01/07/20	Tue 21/07/20	Wed 01/07/20	Tue 21/07/20	0 days		1181	
1181	1181	5.33.2.1.2	Invitation of quotations for purchasing package	10 days	Wed 22/07/20	Fri 31/07/20	Wed 22/07/20	Fri 31/07/20	Wed 22/07/20	Fri 31/07/20	0 days	1180	1182	
1182	1182	5.33.2.1.3	Acceptance of conforming quotation (Completed)	21 days	Sat 01/08/20	Fri 21/08/20	Sat 01/08/20	Fri 21/08/20	Sat 01/08/20	Fri 21/08/20	0 days	1181	1183	
1183	1183	5.33.3	Design submission for replacement of filter plates	7 edays	Fri 21/08/20	Fri 28/08/20	Fri 21/08/20	Fri 28/08/20	Fri 21/08/20	Fri 28/08/20	0 edays	1182	1185	
1184	1184	5.33.4	**Manufacturing and Delivery of Plant & Materials**	345 days	Sat 29/08/20	Sun 08/08/21	Sat 29/08/20	Sun 08/08/21	Sat 29/08/20	Sun 08/08/21	0 days			
1185	1185	5.33.4.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Sat 29/08/20	Thu 24/06/21	Sat 29/08/20	Thu 24/06/21	Sat 29/08/20	Thu 24/06/21	0 days	1183	1186	
1186	1186	5.33.4.2	Shipping and Delivery of Plant to site	45 days	Fri 25/06/21	Sun 08/08/21	Fri 25/06/21	Sun 08/08/21	Fri 25/06/21	Sun 08/08/21	0 days	1185	1189	
1187	1187	5.33.5	**Site Installation Work**	21 days	Mon 09/08/21	Sun 29/08/21	Mon 09/08/21	Sun 29/08/21	Thu 12/08/21	Wed 01/09/21	3 days			
1188	1188	5.33.5.1	Commencement of replacement of filter plates	21 days	Mon 09/08/21	Sun 29/08/21	Mon 09/08/21	Sun 29/08/21	Thu 12/08/21	Wed 01/09/21	3 days			
1189	1189	5.33.5.1.1	Replacement of filter plates (On Hold)	21 days	Mon 09/08/21	Sun 29/08/21	Mon 09/08/21	Sun 29/08/21	Thu 12/08/21	Wed 01/09/21	3 days	1186	1097FF	
1190	1190	5.34	**Fire Services Installation (PS 6B.6.9)**	1248 days	Tue 01/12/20	Wed 01/05/24	Tue 01/12/20	Wed 01/05/24	Tue 01/12/20	Wed 01/05/24	0 days			
1191	1191	5.34.1	Planned Key Date Completion Date - KD1B, Fire	0 days	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days	1195FF		
1192	1192	5.34.2	Planned Sectional Completion Date - Section 1, FSI	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	1196FF		
1193	1193	5.34.3	Planned Sectional Completion Date - Section 4, FSI	0 days	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	0 days	1211FF		
1194	1194	5.34.4	**Design Submissions for FSI**	334 days	Tue 01/12/20	Sat 30/10/21	Tue 01/12/20	Sat 30/10/21	Tue 01/12/20	Sat 30/10/21	0 days			
1195	1195	5.34.4.1	CDS081-11 - Civil and dimensional requirements drawings for Fire Servi	120 days	Tue 01/12/20	Tue 30/03/21	Tue 01/12/20	Tue 30/03/21	Tue 01/12/20	Tue 30/03/21	0 days		1191FF	
1196	1196	5.34.4.2	CDS049 - Detailed Design for Fire Services include AFA, FS, FH, Sprinkle	180 edays	Mon 03/05/21	Sat 30/10/21	Mon 03/05/21	Sat 30/10/21	Mon 03/05/21	Sat 30/10/21	0 edays	163	1200,1197,1192FF	
1197	1197	5.34.5	DG Stores Submissions to FSD for approval	120 days	Sun 31/10/21	Sun 27/02/22	Sun 31/10/21	Sun 27/02/22	Mon 02/10/23	Mon 29/01/24	690 days	1196	1206FF	
1198	1198	5.34.6	**Site Installation Work**	910 days	Sun 31/10/21	Sat 27/04/24	Sun 31/10/21	Sat 27/04/24	Sat 10/09/22	Wed 01/05/24	4 days			
1199	1199	5.34.6.1	Commencement of Fire Services Installation	910 days	Sun 31/10/21	Sat 27/04/24	Sun 31/10/21	Sat 27/04/24	Sat 10/09/22	Wed 01/05/24	4 days			
1200	1200	5.34.6.1.1	Design Review of Approved General Building Plan	126 days	Sun 31/10/21	Sat 05/03/22	Sun 31/10/21	Sat 05/03/22	Sat 10/09/22	Fri 13/01/23	0 days	1196	1201	
1201	1201	5.34.6.1.2	Submission of WWO542 for WSD's approval	270 days	Sun 06/03/22	Wed 30/11/22	Sun 06/03/22	Wed 30/11/22	Sat 14/01/23	Tue 10/10/23	310 days	1200	1202	
1202	1202	5.34.6.1.3	Submission of WWO46 for WSD's Inspection	30 days	Sat 07/10/23	Sun 05/11/23	Sat 07/10/23	Sun 05/11/23	Wed 11/10/23	Thu 09/11/23	0 days	1201,363,492	1203	
1203	1203	5.34.6.1.4	Obtain WWO46 Part V	60 days	Mon 06/11/23	Thu 04/01/24	Mon 06/11/23	Thu 04/01/24	Fri 10/11/23	Mon 08/01/24	0 days	1202	1206,1204	
1204	1204	5.34.6.1.5	FSD Inspection and Approval for MVAC	21 days	Fri 05/01/24	Thu 25/01/24	Fri 05/01/24	Thu 25/01/24	Tue 09/01/24	Mon 29/01/24	0 days	1214,1215,12	1207	
1205	1205	5.34.6.1.6	FSD Inspection and Approval for DG Stores	21 days	Wed 06/12/23	Tue 26/12/23	Wed 06/12/23	Tue 26/12/23	Tue 09/01/24	Mon 29/01/24	30 days	1214,1215,82	1207	
1206	1206	5.34.6.1.7	Submission of (FSI/314 & FSI/501) to FSD	14 days	Fri 05/01/24	Thu 18/01/24	Fri 05/01/24	Thu 18/01/24	Tue 16/01/24	Mon 29/01/24	7 days	1214,1215,12	1207	
1207	1207	5.34.6.1.8	Pre-inspection meeting with FSD	5 days	Fri 26/01/24	Tue 30/01/24	Fri 26/01/24	Tue 30/01/24	Tue 30/01/24	Sat 03/02/24	0 days	1206,1204,12	1208	
1208	1208	5.34.6.1.9	Initial Inspection with FSD	15 days	Wed 31/01/24	Wed 14/02/24	Wed 31/01/24	Wed 14/02/24	Sun 04/02/24	Sun 18/02/24	0 days	1207	1209	
1209	1209	5.34.6.1.10	Document Checking	45 days	Thu 15/02/24	Sat 30/03/24	Thu 15/02/24	Sat 30/03/24	Mon 19/02/24	Wed 03/04/24	0 days	1208	1210	
1210	1210	5.34.6.1.11	Re-Inspections with FSD	14 days	Sun 31/03/24	Sat 13/04/24	Sun 31/03/24	Sat 13/04/24	Thu 04/04/24	Wed 17/04/24	0 days	1209	1211	
1211	1211	5.34.6.1.12	Issue of acceptance memo by FSD	14 days	Sun 14/04/24	Sat 27/04/24	Sun 14/04/24	Sat 27/04/24	Thu 18/04/24	Wed 01/05/24	4 days	1210	1193FF	
1212	1212	5.34.6.1.13	Installation of FS Pumps and Sprinkler Pumps	60 days	Mon 03/04/23	Thu 01/06/23	Mon 03/04/23	Thu 01/06/23	Mon 11/09/23	Thu 09/11/23	127 days		1215	FS - A x 4~6 men
1213	1213	5.34.6.1.14	Installation of Fire Hydrant and Booster Pumps	60 days	Mon 03/04/23	Thu 01/06/23	Mon 03/04/23	Thu 01/06/23	Mon 11/09/23	Thu 09/11/23	127 days		1215	FS - A x 4~6 men
1214	1214	5.34.6.1.15	SAT for Manual and automatic fire detection and alarm system	60 days	Sat 07/10/23	Tue 05/12/23	Sat 07/10/23	Tue 05/12/23	Fri 10/11/23	Mon 08/01/24	0 days	363,492,603,	1206,1204,1205	
1215	1215	5.34.6.1.16	SAT for Fire hydrants, hose reels and street fire hydrant system	60 days	Sat 07/10/23	Tue 05/12/23	Sat 07/10/23	Tue 05/12/23	Fri 10/11/23	Mon 08/01/24	0 days	1212,1213,36	1206,1204,1205	
1216	1216	5.35	**Fire Services Sprinkler Pumping Room, Portion B-7 & B-7B (PS 6B.6.9)**	421 days	Thu 19/05/22	Thu 13/07/23	Thu 19/05/22	Thu 13/07/23	Mon 05/12/22	Mon 29/01/24	200 days			
1217	1217	5.35.1	**Site Installation Work**	421 days	Thu 19/05/22	Thu 13/07/23	Thu 19/05/22	Thu 13/07/23	Mon 05/12/22	Mon 29/01/24	200 days			
1218	1218	5.35.1.1	Tentative Civil Handover Date, FS Sprinkler Pump Room (Rev. 5)	1 day	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Mon 05/12/22	Mon 05/12/22	0 days		1219,1224	
1219	1219	5.35.1.2	Commencement of E&M Installation at FS & Sprinkler Pump Room	420 days	Thu 19/05/22	Thu 13/07/23	Thu 19/05/22	Thu 13/07/23	Tue 06/12/22	Mon 29/01/24	200 days	1218		



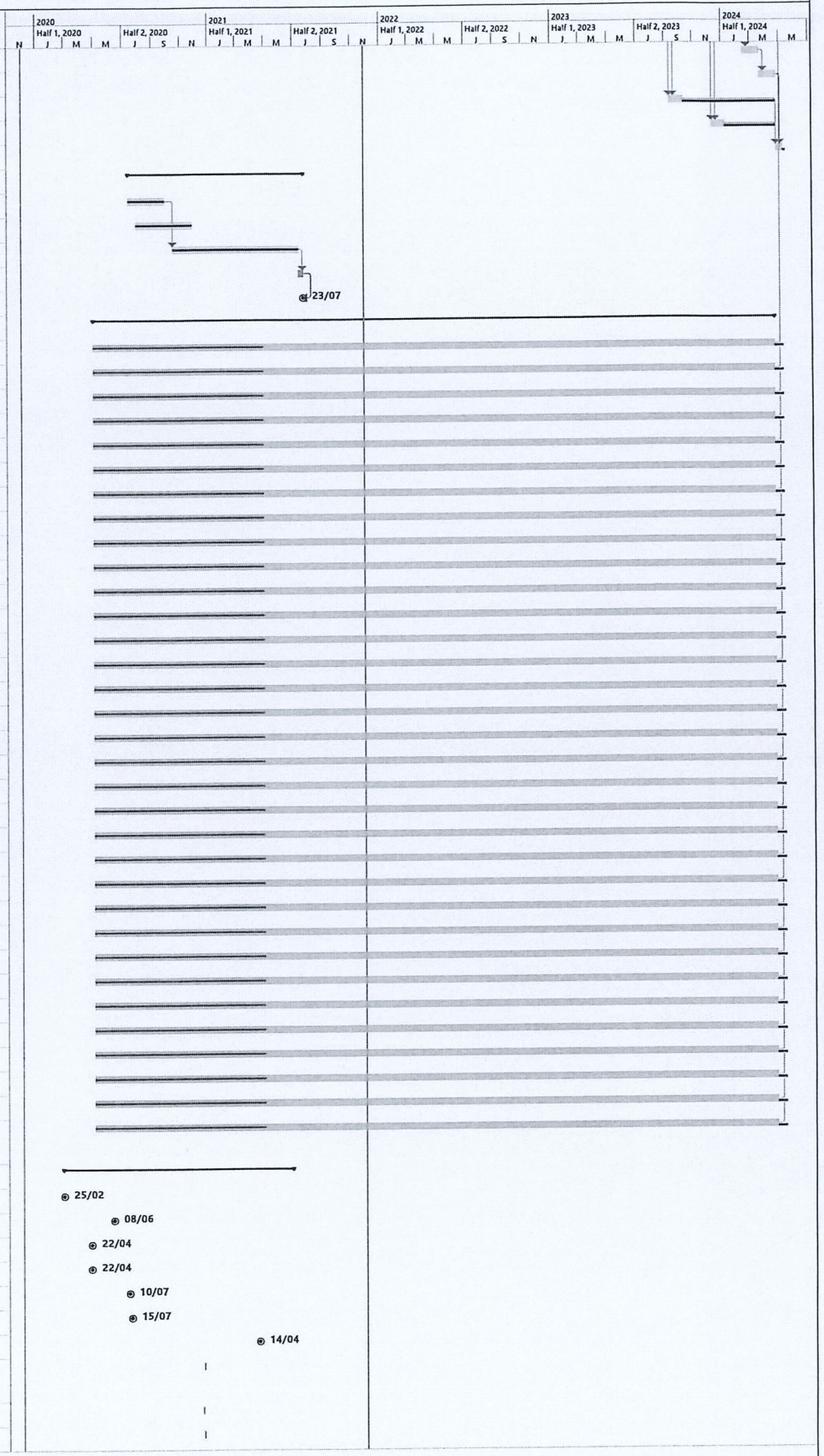
Besiwise
Project: DE/2018/04
Date: 30/11/21

Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

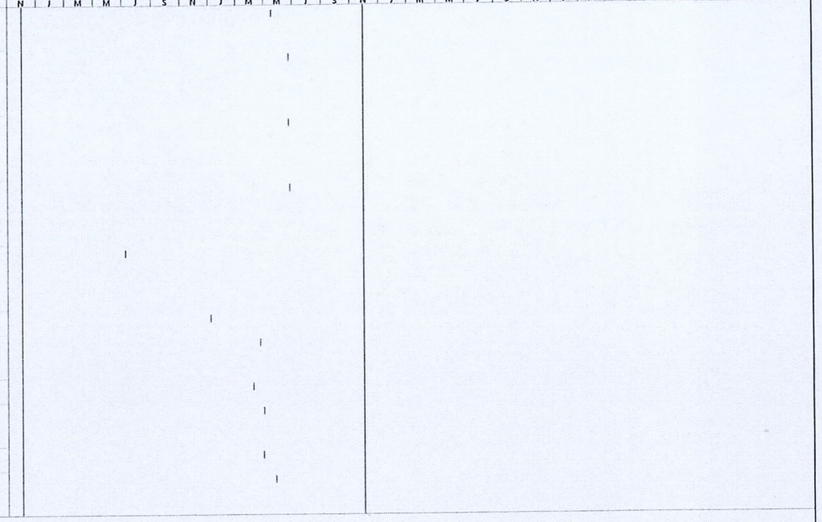
ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1220	1220	5.35.1.2.1	Mechanical Installations for FS & Sprinkler Pumps	90 edays	Thu 19/05/22	Wed 17/08/22	Thu 19/05/22	Wed 17/08/22	Tue 06/12/22	Mon 06/03/23	0 edays		1221	FS - A x 4~6 men
1221	1221	5.35.1.2.2	Electrical Installations for FS & Sprinkler Pumps	90 edays	Wed 17/08/22	Tue 15/11/22	Wed 17/08/22	Tue 15/11/22	Mon 06/03/23	Sun 04/06/23	0.63 edays	1220	1222,1225,1226,1227	FS - A x 4~6 men
1222	1222	5.35.1.2.3	Site Acceptance Test for FS & Sprinkler Pumps	45 days	Wed 16/11/22	Fri 30/12/22	Wed 16/11/22	Fri 30/12/22	Wed 18/10/23	Fri 01/12/23	0 days	1221	1223	
1223	1223	5.35.1.2.4	System Commissioning for FS & Sprinkler Pumps	45 days	Sat 31/12/22	Mon 13/02/23	Sat 31/12/22	Mon 13/02/23	Sat 02/12/23	Mon 15/01/24	325 days	1222	1206	
1224	1224	5.35.1.2.5	Building Services Installations at FS & Sprinkler Pump Room	240 days	Wed 16/11/22	Thu 13/07/23	Wed 16/11/22	Thu 13/07/23	Sun 04/06/23	Mon 29/01/24	200 days	1218		
1225	1225	5.35.1.2.5.1	Lighting and Power Distribution System, Chem 1&2	120 days	Wed 16/11/22	Wed 15/03/23	Wed 16/11/22	Wed 15/03/23	Sun 04/06/23	Sun 01/10/23	0 days	1221	1228	BS - A x 4~6 men
1226	1226	5.35.1.2.5.2	Lightning Protection System, FS & Sprinkler Pump Room	30 days	Wed 16/11/22	Thu 15/12/22	Wed 16/11/22	Thu 15/12/22	Sat 02/09/23	Sun 01/10/23	90 days	1221	1228	BS - A x 4~6 men
1227	1227	5.35.1.2.5.3	Mechanical Ventilation System, FS & Sprinkler PR	14 days	Wed 16/11/22	Tue 29/11/22	Wed 16/11/22	Tue 29/11/22	Mon 18/09/23	Sun 01/10/23	106 days	1221	1228	MVAC - A x 4~6 men
1228	1228	5.35.1.2.5.4	Testing and Commissioning of Building Services Installations, FS &	120 days	Thu 16/03/23	Thu 13/07/23	Thu 16/03/23	Thu 13/07/23	Mon 02/10/23	Mon 29/01/24	189 days	1225,1226,11	206FF	
1229	1229	5.36	Fire Hydrant and Booster Pumping Room, Portion B7 & B-7B (PS 6B.6.9)	465 days	Thu 19/05/22	Sat 26/08/23	Thu 19/05/22	Sat 26/08/23	Sat 22/10/22	Mon 29/01/24	156 days			
1230	1230	5.36.1	Site Installation Work	465 days	Thu 19/05/22	Sat 26/08/23	Thu 19/05/22	Sat 26/08/23	Sat 22/10/22	Mon 29/01/24	156 days			
1231	1231	5.36.1.1	Tentative Civil Handover Date, Fire Hydrant and Booster Pumping Roor	1 day	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Thu 19/05/22	Sat 22/10/22	Sat 22/10/22	0 days		868FF+50 days,1233	
1232	1232	5.36.1.2	Commencement of E&M Installation at Street FH Pump Room	464 days	Thu 19/05/22	Sat 26/08/23	Thu 19/05/22	Sat 26/08/23	Sun 23/10/22	Mon 29/01/24	156 days			
1233	1233	5.36.1.2.1	Mechanical Installations for Street FH Pumps	90 edays	Thu 19/05/22	Wed 17/08/22	Thu 19/05/22	Wed 17/08/22	Sun 23/10/22	Sat 21/01/23	0 edays	1231	1234	FS - A x 4~6 men
1234	1234	5.36.1.2.2	Electrical Installations for Street FH Pump	90 edays	Wed 17/08/22	Tue 15/11/22	Wed 17/08/22	Tue 15/11/22	Sat 21/01/23	Fri 21/04/23	0.63 edays	1233	1235,1238	FS - A x 4~6 men
1235	1235	5.36.1.2.3	Site Acceptance Test for Street FH Pump	45 days	Wed 16/11/22	Fri 30/12/22	Wed 16/11/22	Fri 30/12/22	Wed 01/11/23	Fri 15/12/23	0 days	1234	1236	
1236	1236	5.36.1.2.4	System Commissioning for Street FH Pumps	45 days	Sat 31/12/22	Mon 13/02/23	Sat 31/12/22	Mon 13/02/23	Sat 16/12/23	Mon 29/01/24	339 days	1235	1206FF	
1237	1237	5.36.1.2.5	Building Services Installations at Street FH Pump Room	284 days	Wed 16/11/22	Sat 26/08/23	Wed 16/11/22	Sat 26/08/23	Fri 21/04/23	Mon 29/01/24	156 days			
1238	1238	5.36.1.2.5.1	Lighting and Power Distribution System, Street FH PR	120 days	Wed 16/11/22	Wed 15/03/23	Wed 16/11/22	Wed 15/03/23	Fri 21/04/23	Fri 18/08/23	0 days	1234	1241,1239	BS - A x 4~6 men
1239	1239	5.36.1.2.5.2	Lightning Protection System, Street FH PR	30 days	Thu 16/03/23	Fri 14/04/23	Thu 16/03/23	Fri 14/04/23	Sat 19/08/23	Sun 17/09/23	0 days	1238	1240,1241	BS - A x 4~6 men
1240	1240	5.36.1.2.5.3	Mechanical Ventilation System, Street FH PR	14 days	Sat 15/04/23	Fri 28/04/23	Sat 15/04/23	Fri 28/04/23	Mon 18/09/23	Sun 01/10/23	0 days	1239	1241	MVAC - A x 4~6 men
1241	1241	5.36.1.2.5.4	Testing and Commissioning of Building Services Installations, FH PI	120 days	Sat 29/04/23	Sat 26/08/23	Sat 29/04/23	Sat 26/08/23	Mon 02/10/23	Mon 29/01/24	145 days	1238,1239,11	206FF	
1242	1242	5.37	Plumbing Installation (PS 6B.6.8)	1049 days	Tue 16/02/21	Tue 02/01/24	Tue 16/02/21	Tue 02/01/24	Tue 16/02/21	Tue 02/01/24	0 days			
1243	1243	5.37.1	Planned Sectional Completion Date - Section 1, Plumbing	0 days	Thu 01/07/21	Thu 01/07/21	Thu 01/07/21	Thu 01/07/21	Thu 01/07/21	Thu 01/07/21	0 days	1245FF		
1244	1244	5.37.2	Design Submissions for Plumbing	134 days	Tue 16/02/21	Wed 30/06/21	Tue 16/02/21	Wed 30/06/21	Tue 16/02/21	Thu 01/07/21	1 day			
1245	1245	5.37.2.1	CDS033 - Detailed Design for Plumbing System	134 edays	Tue 16/02/21	Wed 30/06/21	Tue 16/02/21	Wed 30/06/21	Tue 16/02/21	Thu 01/07/21	0.63 edays	158	1248,1243FF	
1246	1246	5.37.3	Site Installation Work	915 days	Thu 01/07/21	Tue 02/01/24	Thu 01/07/21	Tue 02/01/24	Wed 08/12/21	Tue 02/01/24	0 days			
1247	1247	5.37.3.1	Commencement of Plumbing Installation	915 days	Thu 01/07/21	Tue 02/01/24	Thu 01/07/21	Tue 02/01/24	Wed 08/12/21	Tue 02/01/24	0 days			
1248	1248	5.37.3.1.1	Submission of detail design for acceptance	90 days	Thu 01/07/21	Tue 28/09/21	Thu 01/07/21	Tue 28/09/21	Wed 08/12/21	Mon 07/03/22	0 days	1245	1249	Pb - A x 4~6 men
1249	1249	5.37.3.1.2	Submission of WWO542 for WSD's approval	355 days	Wed 29/09/21	Sun 18/09/22	Wed 29/09/21	Sun 18/09/22	Tue 08/03/22	Sat 25/02/23	118 days	1248	361,490,601,778	Pb - B x 4~6 men
1250	1250	5.37.3.1.3	Connection of External Pumping System (By others)	0 days	Fri 15/09/23	Fri 15/09/23	Fri 15/09/23	Fri 15/09/23	Wed 04/10/23	Wed 04/10/23	17 days		1251	
1251	1251	5.37.3.1.4	Submission of WWO46 for WSD's Inspection	45 days	Mon 02/10/23	Wed 15/11/23	Mon 02/10/23	Wed 15/11/23	Wed 04/10/23	Fri 17/11/23	0 days	1250,361,49	1252	
1252	1252	5.37.3.1.5	Obtain WWO46 Part V	45 days	Thu 16/11/23	Sat 30/12/23	Thu 16/11/23	Sat 30/12/23	Sat 18/11/23	Mon 01/01/24	2 days	1251	1253	
1253	1253	5.37.3.1.6	Tentative Date for connection of external water pipework (by others)	0 days	Tue 02/01/24	Tue 02/01/24	Tue 02/01/24	Tue 02/01/24	Tue 02/01/24	Tue 02/01/24	0 days	1252		
1254	1254	5.38	Photovoltaic Power System (PS 6B.6.11)	1128 days	Mon 01/03/21	Mon 01/04/24	Mon 01/03/21	Mon 01/04/24	Mon 01/03/21	Mon 01/04/24	0 days			
1255	1255	5.38.1	Planned Sectional Completion Date - Section 1, BR 2A & 2B	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	1265FF		
1256	1256	5.38.2	Planned Sectional Completion Date - Section 2, BR 2A & 2B	0 days	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	0 days	1273FF		
1257	1257	5.38.3	Selection of Suppliers for major plant and materials for BR 2A & 2B	73 days	Mon 01/03/21	Wed 12/05/21	Mon 01/03/21	Wed 12/05/21	Mon 01/03/21	Wed 12/05/21	0 days			
1258	1258	5.38.3.1	PV System (EQT041)	73 days	Mon 01/03/21	Wed 12/05/21	Mon 01/03/21	Wed 12/05/21	Mon 01/03/21	Wed 12/05/21	0 days			
1259	1259	5.38.3.1.1	Submission for acceptance of purchasing package	30 days	Mon 01/03/21	Tue 30/03/21	Mon 01/03/21	Tue 30/03/21	Mon 01/03/21	Tue 30/03/21	0 days		1260	
1260	1260	5.38.3.1.2	Invitation of quotations for purchasing package	21 days	Wed 31/03/21	Tue 20/04/21	Wed 31/03/21	Tue 20/04/21	Wed 31/03/21	Tue 20/04/21	0 days	1259	1261	
1261	1261	5.38.3.1.3	Acceptance of conforming quotation	21 days	Wed 21/04/21	Tue 11/05/21	Wed 21/04/21	Tue 11/05/21	Wed 21/04/21	Tue 11/05/21	0 days	1260	1262	
1262	1262	5.38.3.1.4	Commencement of Design Work	1 day	Wed 12/05/21	Wed 12/05/21	Wed 12/05/21	Wed 12/05/21	Wed 12/05/21	Wed 12/05/21	0 days	1261	1264	
1263	1263	5.38.4	Design Submissions	49 days	Wed 12/05/21	Wed 30/06/21	Wed 12/05/21	Wed 30/06/21	Wed 12/05/21	Mon 12/07/21	12 days			
1264	1264	5.38.4.1	CDS060 - Detailed Design for PV System	45 edays	Wed 12/05/21	Sat 26/06/21	Wed 12/05/21	Sat 26/06/21	Wed 12/05/21	Fri 09/07/21	0.63 edays	1262	1265	
1265	1265	5.38.4.2	Complete the CLP's Electronic Application Form and Upload Required D	4 days	Sun 27/06/21	Wed 30/06/21	Sun 27/06/21	Wed 30/06/21	Fri 09/07/21	Mon 12/07/21	0 days	1264	1255FF,1267	
1266	1266	5.38.5	Material ordering and delivery to site	767 days	Thu 01/07/21	Sun 06/08/23	Thu 01/07/21	Sun 06/08/23	Fri 24/03/23	Wed 04/10/23	59 days			
1267	1267	5.38.5.1	Manufacturing and Factory Acceptance Test of Plant	150 days	Thu 01/07/21	Sat 27/11/21	Thu 01/07/21	Sat 27/11/21	Fri 24/03/23	Sun 20/08/23	572 days	1265	1268	
1268	1268	5.38.5.2	Shipping and Delivery of Plant to site	45 days	Fri 23/06/23	Sun 06/08/23	Fri 23/06/23	Sun 06/08/23	Mon 21/08/23	Wed 04/10/23	0 days	1267,1270S	1271	
1269	1269	5.38.6	Site Installation Work	345 days	Thu 23/02/23	Fri 02/02/24	Thu 23/02/23	Fri 02/02/24	Thu 23/02/23	Mon 01/04/24	0 days			
1270	1270	5.38.6.1	Tentative Civil Handover Date, Portion B-4, BR2A & 2B (Rev. 5)	1 day	Thu 23/02/23	Thu 23/02/23	Thu 23/02/23	Thu 23/02/23	Thu 23/02/23	Thu 23/02/23	0 days		1268SS+120 edays	
1271	1271	5.38.6.2	Commencement of Site Installation Work	90 days	Mon 07/08/23	Sat 04/11/23	Mon 07/08/23	Sat 04/11/23	Thu 05/10/23	Tue 02/01/24	0 days	1268	1272	PV - A x 4~6 men
1272	1272	5.38.6.3	Technical Assessment, System Test and Installation	60 days	Sun 05/11/23	Wed 03/01/24	Sun 05/11/23	Wed 03/01/24	Wed 03/01/24	Sat 02/03/24	0 days	1271	1273	PV - A x 4~6 men
1273	1273	5.38.6.4	CLP's smart meter installation and Final on-grid test with CLP	30 days	Thu 04/01/24	Fri 02/02/24	Thu 04/01/24	Fri 02/02/24	Sun 03/03/24	Mon 01/04/24	59 days	1272	1256FF	
1274	1274	5.39	Plant Commissioning	240 days	Tue 12/09/23	Wed 08/05/24	Tue 12/09/23	Wed 08/05/24	Tue 13/02/24	Mon 13/05/24	0 days		39FF	
1275	1275	5.39.1	Planned Sectional Completion Date - Section 4, Plant Commissioning	0 days	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	0 days			
1276	1276	5.39.2	Design Submission for Treatment Process Plant Testing & Commissionin	90 days	Wed 01/11/23	Mon 29/01/24	Wed 01/11/23	Mon 29/01/24	Wed 14/02/24	Mon 13/05/24	105 days			
1277	1277	5.39.2.1	Document Submission and Resubmission for T&C procedures	90 days	Wed 01/11/23	Mon 29/01/24	Wed 01/11/23	Mon 29/01/24	Wed 14/02/24	Mon 13/05/24	105 days	1278FF-120 d		
1278	1278	5.39.3	System Commissioning Tests of the E&M systems at IW, PST, BR 2A&2B, I	7 days	Thu 08/02/24	Wed 14/02/24	Thu 08/02/24	Wed 14/02/24	Tue 13/02/24	Mon 19/02/24	0 days	931,977,997	1279,1277FF-120 days	



ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1279	1279	5.39.4	MBR System Process Startup	35 days	Thu 15/02/24	Wed 20/03/24	Thu 15/02/24	Wed 20/03/24	Tue 20/02/24	Mon 25/03/24	0 days	1278	1280	
1280	1280	5.39.5	Plant Commissioning	35 days	Thu 21/03/24	Wed 24/04/24	Thu 21/03/24	Wed 24/04/24	Tue 26/03/24	Mon 29/04/24	0 days	1279	1283	
1281	1281	5.39.6	Overall commissioning of CCTV system	30 days	Tue 12/09/23	Wed 11/10/23	Tue 12/09/23	Wed 11/10/23	Sun 31/03/24	Mon 29/04/24	196 days	362,491,602,	1283	
1282	1282	5.39.7	Overall commissioning of Facility Computerized Systems (SCADA, CMMS, PMS, ID	28 days	Mon 11/12/23	Sun 07/01/24	Mon 11/12/23	Sun 07/01/24	Tue 02/04/24	Mon 29/04/24	108 days	354,483,770,	1283	
1283	1283	5.39.8	Overall Plant Commissioning and DSD pre-handover Inspections	14 days	Thu 25/04/24	Wed 08/05/24	Thu 25/04/24	Wed 08/05/24	Tue 30/04/24	Mon 13/05/24	5 days	1280,1281,12		
1284	1284	5.40	CE No. 009 - Provision of an Additional Primary Sludge Thickening System	375 days	Tue 14/07/20	Fri 23/07/21	Tue 14/07/20	Fri 23/07/21	Tue 14/07/20	Fri 23/07/21	0 days			
1285	1285	5.40.1	Detail Design Submission and Approval	77 days	Tue 14/07/20	Mon 28/09/20	Tue 14/07/20	Mon 28/09/20	Tue 14/07/20	Mon 28/09/20	0 days		1287	
1286	1286	5.40.2	Subletting, Procurement, Manufacturing and Delivery	120 days	Fri 31/07/20	Fri 27/11/20	Fri 31/07/20	Fri 27/11/20	Fri 31/07/20	Fri 27/11/20	0 days			
1287	1287	5.40.3	Site Installation	270 days	Sat 17/10/20	Tue 13/07/21	Sat 17/10/20	Tue 13/07/21	Sat 17/10/20	Tue 13/07/21	0 days	1285	1288	
1288	1288	5.40.4	Testing and Commissioning (Rev. 15)	10 days	Wed 14/07/21	Fri 23/07/21	Wed 14/07/21	Fri 23/07/21	Wed 14/07/21	Fri 23/07/21	0 days	1287	1289FF	
1289	1289	5.40.5	Planned Completion Date	1 day	Fri 23/07/21	Fri 23/07/21	Fri 23/07/21	Fri 23/07/21	Fri 23/07/21	Fri 23/07/21	0 days	1288FF		
1290	1290	6	Beam Plus Submissions	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	0 days			
1291	1291	6.1	SA10 - Environmental Management Plan	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1292	1292	6.2	SA11 - Air Pollution During Construction	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1293	1293	6.3	SA12 - Noise During Construction	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1294	1294	6.4	SA14 - Noise from Building Equipment	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1295	1295	6.5	SA15 - Light Pollution	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1296	1296	6.6	MAP1 - Timber used for Temporary Works	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1297	1297	6.7	MAP2 - Use of Non-CFC Based Refrigerants	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1298	1298	6.8	MAP3 - Waste Management Plan	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1299	1299	6.9	MA2 - Modular and Standardized Design	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1300	1300	6.10	MA8 - Ozone Depleting Substances	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1301	1301	6.11	MA11 - Construction Waste Reduction	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1302	1302	6.12	EUP1 - Minimum Energy Performance	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1303	1303	6.13	EU1 - Reduction of CO2 Emissions	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1304	1304	6.14	EU2 - Peak Electricity Demand Reduction	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1305	1305	6.15	EU6 - Renewable Energy Systems	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1306	1306	6.16	EU9 - Energy Efficient Appliances	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1307	1307	6.17	EU10 - Testing and Commissioning	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1308	1308	6.18	EU11 - Operation and Maintenance	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1309	1309	6.19	EU12 - Meter and Monitoring	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1310	1310	6.20	WUP1 - Water Quality Survey	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1311	1311	6.21	WUP2 - Minimum Water Saving Performance	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1312	1312	6.22	WU1 / WU6 - Annual Water Use / Effluent Discharge to Foul Sewers	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1313	1313	6.23	IEQP1 - Minimum Ventilation Performance	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1314	1314	6.24	IEQ1 - Security	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1315	1315	6.25	IEQ2 - Plumbing and Drainage	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1316	1316	6.26	IEQ3 - Biological Contamination	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1317	1317	6.27	IEQ5 - Construction IAQ Management	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1318	1318	6.28	IEQ6 / IEQ7 - IAQ	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1319	1319	6.29	IEQ9 - Increased Ventilation	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1320	1320	6.30	IEQ11 - Localised Ventilation	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1321	1321	6.31	IEQ12 - Ventilation in Common Areas	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1322	1322	6.32	IEQ13 - Thermal Comfort in Air - Conditioned Premises	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1323	1323	6.33	IEQ16 / IEQ17 - Interior Lighting in Normally Occupied Area / Interior Lighting in Areas not Normally Occupied	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	Mon 25/05/20	Tue 14/05/24	19 days		39	
1324	1324	7	Summary of compensation events notified	487 days	Tue 25/02/20	Fri 25/06/21	Tue 25/02/20	Fri 25/06/21	Tue 25/02/20	Fri 25/06/21	0 days			
1325	1325	7.1	Compensation Event (CE) No. 001, Special Arrangement in Reducing the Risk	1 day	Tue 25/02/20	Tue 25/02/20	Tue 25/02/20	Tue 25/02/20	Tue 25/02/20	Tue 25/02/20	0 days			
1326	1326	7.2	Compensation Event (CE) No. 002, the Contractor's Site Accommodation by	1 day	Mon 08/06/20	Mon 08/06/20	Mon 08/06/20	Mon 08/06/20	Mon 08/06/20	Mon 08/06/20	0 days			
1327	1327	7.3	Compensation Event (CE) No. 003, Designated Area for the Contractor's Site	1 day	Wed 22/04/20	Wed 22/04/20	Wed 22/04/20	Wed 22/04/20	Wed 22/04/20	Wed 22/04/20	0 days			
1328	1328	7.4	Compensation Event (CE) No. 005, Designated Area for the Contractor's Stor	1 day	Wed 22/04/20	Wed 22/04/20	Wed 22/04/20	Wed 22/04/20	Wed 22/04/20	Wed 22/04/20	0 days			
1329	1329	7.5	Compensation Event (CE) No. 007, Employment of Temporary Staff under Ai	1 day	Fri 10/07/20	Fri 10/07/20	Fri 10/07/20	Fri 10/07/20	Fri 10/07/20	Fri 10/07/20	0 days			
1330	1330	7.6	Compensation Event (CE) No. 009, Provision of an Additional Primary Sludge	1 day	Wed 15/07/20	Wed 15/07/20	Wed 15/07/20	Wed 15/07/20	Wed 15/07/20	Wed 15/07/20	0 days			
1331	1331	7.7	Compensation Event (CE) No. 011, Dismantling, relocating, disconnecting an	1 day	Wed 14/04/21	Wed 14/04/21	Wed 14/04/21	Wed 14/04/21	Wed 14/04/21	Wed 14/04/21	0 days			
1332	1332	7.8	NCE-PPMI-0202 (CE) Revised GA for F.S. & Sprinkler Pumping Room and Emergency Generator Room	1 day	Fri 18/12/20	Fri 18/12/20	Fri 18/12/20	Fri 18/12/20	Fri 18/12/20	Fri 18/12/20	0 days			
1333	1333	7.9	NCE-PPMI-0203 (CE) Revised General Arrangement for Temp. Chemical Syst	1 day	Tue 15/12/20	Tue 15/12/20	Tue 15/12/20	Tue 15/12/20	Tue 15/12/20	Tue 15/12/20	0 days			
1334	1334	7.10	NCE-PPMI-0204 (CE) Revised GA Layout Plan for DO Sys. No. 3A	1 day	Fri 18/12/20	Fri 18/12/20	Fri 18/12/20	Fri 18/12/20	Fri 18/12/20	Fri 18/12/20	0 days			



ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1335	1335	7.11	NCE-PPMI-0205 (CE) Provision of Louvre Panel for Outdoor AC Units at Contractor's Site Accommodation	1 day	Mon 17/05/21	Mon 17/05/21	Mon 17/05/21	Mon 17/05/21	Mon 17/05/21	Mon 17/05/21	0 days			
1336	1336	7.12	NCE-PPMI-0206 (CE) Modification of Feeders of the existing switchboards at Inlet Work and Provision of MCB Distribution Boards and Cables for Sidewide Submersible Pumps	1 day	Wed 23/06/21	Wed 23/06/21	Wed 23/06/21	Wed 23/06/21	Wed 23/06/21	Wed 23/06/21	0 days			
1337	1337	7.13	NCE-PPMI-0207 (CE) Modification of Feeders of the existing switchboards at Inlet Consolidation House and Provision of MCB Distribution Boards and Cables for Sidewide Submersible Pumps	1 day	Wed 23/06/21	Wed 23/06/21	Wed 23/06/21	Wed 23/06/21	Wed 23/06/21	Wed 23/06/21	0 days			
1338	1338	7.14	NCE-PPMI-0208 (CE) Modification of Feeders of the existing switchboards at Membrane Facilities Building and Provision of MCB Distribution Boards and Cables for Sidewide Submersible Pumps	1 day	Fri 25/06/21	Fri 25/06/21	Fri 25/06/21	Fri 25/06/21	Fri 25/06/21	Fri 25/06/21	0 days			
1339	1339	7.15	NCE-PPMI-0211 (CE) Provision of a New Chemical Storage and Dosing System fo the Application of Glycerin to Replace Methanol as an Alternative External Carbon Source for the Denitrification Process at BR2A and BR2B	1 day	Wed 08/07/20	Wed 08/07/20	Wed 08/07/20	Wed 08/07/20	Wed 08/07/20	Wed 08/07/20	0 days			
1340	1340	7.16	NCE-PPMI-0213 (CE) Revised General Arrangement for Chemical System No.	1 day	Tue 05/01/21	Tue 05/01/21	Tue 05/01/21	Tue 05/01/21	Tue 05/01/21	Tue 05/01/21	0 days			
1341	1341	7.17	NCE-PMI-0219 (CE) Provision and Removal of the Blank Flange to Blank Off Drain Valve and Temporary Submersible Pumps in PST No. 6	1 day	Thu 22/04/21	Thu 22/04/21	Thu 22/04/21	Thu 22/04/21	Thu 22/04/21	Thu 22/04/21	0 days			
1342	1342	7.18	NCE-PMI-0223 (CE) Revised GA for Chemical Pipe Trench	1 day	Wed 07/04/21	Wed 07/04/21	Wed 07/04/21	Wed 07/04/21	Wed 07/04/21	Wed 07/04/21	0 days			
1343	1343	7.19	NCE-PMI-0226 (CE) Modification Works of Manhole Cover for MHD13 for Filtrate Intake Pipe of Primary Sludge Thickening System	1 day	Fri 30/04/21	Fri 30/04/21	Fri 30/04/21	Fri 30/04/21	Fri 30/04/21	Fri 30/04/21	0 days			
1344	1344	7.20	NCE-PMI-0227 (CE) Provision of Project Jackets with Fleece Vests	1 day	Thu 29/04/21	Thu 29/04/21	Thu 29/04/21	Thu 29/04/21	Thu 29/04/21	Thu 29/04/21	0 days			
1345	1345	7.21	NCE-PMI-0234 (CE) Provision of removal of the blank flange to blank off drain valve of PST No. 4	1 day	Tue 25/05/21	Tue 25/05/21	Tue 25/05/21	Tue 25/05/21	Tue 25/05/21	Tue 25/05/21	0 days			



Contract No. DE/2018/04
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
- E&M Works for Sewage Treatment Facilities
3 Month Rolling Programme (From 02/11/2021 to 01/02/2022)

Updated on: **23-Nov-21**

Item	Major Activities & Submission in coming 3 months	Time					Progress (E&M contract)				Action	Remarks / Status
		Contract Planned Commencement Date	Anticipated / Actual Commencement Date	Contract Planned Finish Date	Anticipated / Actual Finish Date	% of time elapsed based on "updated date")	Unit	Total Quantity	Completed Quantity	Actual Progress %		
Drawing Submisssion for Key Dates												
KD1A: Submission of civil and dimensional requirement drawing, electrical schematic drawings, etc. from formation level up to +8mPD in accordance with the contract requirement of Contract No. DC/2018/07 to carry out civil works construction	KD1A: Submission of Civil Requirement Drawing (Final)	8/28/2020	9/18/2020	11/5/2020	11/5/2020	Task Completed	no.	26	26	100%		
	KD1A: Submission of Electrical Schematic Drawing (Final)	7/15/2020	7/15/2020	11/5/2020	11/5/2020	Task Completed	no.	11	11	100%		
	KD1A: 6 November 2020											
KD1B: Submission of remaining civil and dimenssional requirement drawings, electrical schematic drawing, etc. in accordance with the contract requirement of Contract No. DC/2018/07 to carry out civil works construction	KD1B: Submission of Civil Requirement Drawing (First Draft)	9/30/2020	9/28/2020	12/30/2020	3/31/2021	Task Completed	no.	47	47	100%		
	KD1B: Submission of Civil Requirement Drawing (Final)	11/6/2020	11/5/2020	6/4/2021	6/4/2021	Task Completed	no.	47	47	100%		All the CWR Drawings were submitted.
	KD1B: 4 June 2021											
KD3A: 04SC010 - Dismantle & Removal of Emergency Generators in existing Power House	KD3A: Testing and Comissioning	7/1/2020	7/3/2020	7/29/2020	7/29/2020	Task Completed				100%		First test was conducted on 3 July 2020. Remaining test would be subjected to completion of civil works. KD3A - 29 July 2020. Joint Site Inspection was conducted on 24 July 2020 and Notice of completion of work was submitted on 28 July 2020
	KD3A: 29 July 2020											
KD3B: 6B.2.15 Operation Restoration of Existing Primary Sedimentation Tank (PST) No. 4 and 6	KD3B: System Commissioning for PST No. 4 & 6	N/A	6/22/2021	N/A	9/3/2021	Task Completed				100%		Wet test (2nd) for PST#6 completed on 3 Sep 2021 and pre-handover inspection arranged on 30 Aug 2021. Defect list (final) received on 17 Sep 2021 and to be rectified by 30 Nov 2021. Training shall be carried out in early December.
	KD3B: 9 June 2021											
Section 1 of Works (outstanding works list)												
6B.2.12 Provision of New Replacement Filter Plates for Existing Membrane Filter Presses at Existing Sludge Press House	Material Delivery	12/1/2020	12/1/2020	8/8/2021	8/8/2021	Task Completed				-		"Filter Press Plates and Cloths" were handed over to DSD.
6B.2.16 Temporary Filtrate Equalisation System	Mechanical Installation	3/17/2021	3/30/2021	4/12/2021	5/14/2021	Task Completed				-		
	Electrical Installation	3/13/2021	3/29/2021	4/15/2021	12/10/2021	93%				-		PLC programme for water spray system (stage 1) is on-going, motorized gate valve for stage 2 under PMI is being fabricated and the delivery lead time is by end November. Flow diagram was sent to AECOM for review. Bestwise to check the delivery time for cables.
	Testing and Comissioning	4/15/2021	4/22/2021	5/1/2021	12/10/2021	93%				-		Auto mode (without water spray system) is adpoted, water spray system (stage 2) under PMI shall be commenced after delivery of motorized gate valve (by end November)
6B.2.1 Inlet Works	Submission of Contractor's Design for Inlet Works No. 1	9/6/2020	11/16/2020	5/14/2021	12/31/2021	91%				-	Bestwise	Finalized design calculations for Inlet Works no.1 shall be submitted by 31 Dec 2021.
	Submission of P&M Submission	9/6/2020	9/7/2020	5/14/2021	12/31/2021	92%						P&M0003 (rev.3) for coarse screen and fine screen was submitted on 10 Feb 2021. AECOM accepted subject to comments on 16 Feb 2021. P&M submission (rev. 1) for inlet pumps was submitted on 10 Feb 2021. AECOM accepted subject to comments on 1 Apr 2021. P&M (rev.1) for penstock and actuator was submitted on 28 Jan 2021. AECOM commented on 12 Mar 2021. Finalized material submissions for Inlet Works no.1 shall be submitted by 31 Dec 2021.
	Submission of P&ID Drawing	9/6/2020	9/6/2020	5/14/2021	12/29/2020	Task Completed						PID (rev.B) submitted on 13 Nov 2020. AECOM accepted subject to comments on 29 Dec 2020.
	Submission of GA Drawing	9/6/2020	1/5/2021	5/14/2021	12/31/2021	89%						E&M GA submission submitted on 6 Feb 2021. AECOM commented on 19 Feb 2021. Bestwise resubmitted DWG-0082 Rev.1 on 9 July 2021. Electrical GA submitted on 7 Apr 2021. AECOM commented on 21 Apr 2021. Bestwise resubmitted DWG-0095 Rev.1 on 3 July 2021 and accepted by AECOM. Finalized drawings for Inlet Works no.1 shall be submitted by 31 Dec 2021.

	Submission of Electrical Drawing	9/6/2020	1/15/2021	5/14/2021	12/31/2021	89%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. Finalized drawings for Inlet Works no.1 shall be submitted by 31 Dec 2021.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	1/21/2022	76%				-		
6B.2.2 Primary Sedimentation Tank No. 1-4	Submission of Contractor's Design for Primary Sedimentation Tanks No. 1-4	9/6/2020	12/28/2020	5/14/2021	5/31/2022	64%				-	Bestwise	PFD (rev.B) under DWG0004 submitted on 22 June 2021. Finalized design calculations for PST shall be submitted by 31 May 2022.
	Submission of P&M Submission	9/6/2020	11/26/2020	5/14/2021	5/31/2022	66%						Plant and Material (P&M0044) submission (Rev. 0) for primary sludge pump was submitted on 5 Feb 2021. AECOM commented on 1 Apr 2021. Bestwise to resubmit. Finalized material submissions for PST shall be submitted by 31 May 2022.
	Submission of P&ID Drawing	9/6/2020	10/2/2020	5/14/2021	6/24/2021	Task Completed						PID under DWG0037 (rev.1) submitted on 24 June 2021 and is accepted by AECOM.
	Submission of GA Drawing	9/6/2020	2/3/2021	5/14/2021	5/31/2022	61%						Mechanical GA was submitted on 19 Jun 2021. Electrical GA under DWG0103 (rev.1) was submitted on 6 Jul 2021 and is accepted by AECOM. Finalized drawings for PST shall be submitted by 31 May 2022.
	Submission of Electrical Drawing	9/6/2020	1/15/2021	5/14/2021	5/31/2022	62%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. Finalized drawings for PST shall be submitted by 31 May 2022.
	Acceptance of submission	5/15/2021	4/2/2021	5/29/2021	6/21/2022	53%				-		
6B.2.3 Chemical Storage and Dosing System	Submission of Contractor's Design for Chemical Dosing System (CDS006)	9/6/2020	1/7/2021	5/14/2021	10/29/2021	Task Completed				-	Bestwise	Design calculation (rev.0) of CHS1 and TCHS submitted on 2 Sep 2020 and 28 Aug 2020, AECOM commented on 24 Sep and 6 Oct 2020, Bestwise submitted CDS0060 on 15 Jul 2021 and CDS0044 on 19 Jul 2021. Finalized design calculation for chemical systems was submitted on 29 Oct 2021.
	Submission of P&M Submission	9/6/2020	9/6/2020	5/14/2021	10/30/2021	Task Completed						Finalized material submissions for chemical system was submitted on 30 Oct 2021.
	Submission of P&ID Drawing	9/6/2020	12/11/2020	5/14/2021	6/29/2021	Task Completed						PID resubmitted under DWG0053 (rev.1) on 28 Jun 2021, DWG0057 (rev.1) on 29 Jun 2021 and DWG0058 (rev.1) on 29 Jun 2021.
	Submission of GA Drawing	9/6/2020	2/8/2021	5/14/2021	11/19/2021	101%						Electrical GA drawings for CS1 under DWG0096 submitted on 10 April 2021. AECOM accepted subject to comments on 17 Apr 2021. Mechanical GA drawings for CS1 submitted on 1 April 2021. AECOM commented on 24 April 2021. Bestwise resubmitted DWG0093 (rev.1) on 30 Jun 2021 and is accepted by AECOM. Mechanical GA for Temp CS submitted on 12 Jun 2021. Finalized drawings for chemical systems shall be submitted by 19 Nov 2021.
	Submission of Electrical Drawing	9/6/2020	1/15/2021	5/14/2021	11/19/2021	101%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. Finalized drawings for chemical system shall be submitted by 19 Nov 2021.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	12/10/2021	92%				-		
6B.2.4 Membrane Bioreactor (MBR) System - Bio Reactor 2A and 2B	Submission of Contractor's Design for Bioreactor 2A and 2B (CDS004)	9/6/2020	1/12/2021	5/14/2021	6/30/2022	59%				-	Bestwise	PFD (rev.1) submitted on 3 Nov 2020. AECOM accepted on 7 Dec 2020 subject to comment. MBR system process and design calculation (rev.2) submitted on 6 Nov 2020. AECOM accepted on 17 Nov 2020 subject to comments. Electrical CDS submitted on 23 Jun 2021. Finalized design calculations shall be submitted by 30 June 2022.
	Submission of P&M Submission	9/6/2020	11/26/2020	5/14/2021	6/30/2022	62%						P&M0053 Mixed Liquor Return (MLR) Pump was resubmitted formally on 17 Jun 2021. Finalized material submission shall be submitted by 30 June 2022.
	Submission of P&ID Drawing	9/6/2020	11/2/2020	5/14/2021	7/2/2021	Task Completed						PID (Rev.1) under DWG0042 resubmitted on 6 July 2021.
	Submission of GA Drawing	9/6/2020	2/17/2021	5/14/2021	6/30/2022	56%						Mechanical GA under DWG0132 submitted on 26 Jun 2021 and is accepted by AECOM. Electrical GA submitted on 23 Jun 2021. Finalized drawing shall be submitted by 30 June 2022.
	Submission of Electrical Drawing	9/6/2020	1/15/2021	5/14/2021	6/30/2022	59%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. Finalized drawing shall be submitted by 30 June 2022.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	7/21/2022	44%				-		
6B.2.4 Membrane Bioreactor (MBR) System - Membrane Filtration System No. 2 (MFB No. 2)	Submission of Contractor's Design for Membrane Filtration System (CDS005)	9/6/2020	1/11/2021	5/14/2021	6/30/2022	59%				-	Bestwise	PFD (rev.1) submitted on 3 Nov 2020. AECOM accepted on 10 Dec 2020 subject to comment. MBR system process and design calculation (rev.2) submitted on 6 Nov 2020. AECOM accepted on 17 Nov 2020 subject to comments. Finalized design calculations shall be submitted by 30 June 2022.

	Submission of P&M Submission	9/6/2020	11/19/2020	5/14/2021	6/30/2022	63%						P&M (rev.0) for penstock and actuator was submitted on 20 Nov 2020. AECOM commented on 5 Jan 2021. Bestwise to resubmit P&M0050 (rev. 0) for membrane tank drain pump was submitted on 5 Mar 2021. AECOM commented on 29 Mar 2021. Bestwise resubmitted formally on 19 Jun 2021. P&M0072 (rev. 0) for membrane module was submitted on 20 Apr 2021. AECOM commented on 20 May 2021, Bestwise to re-submit. P&M0069 (rev.0) for permeate pump was submitted on 4 Mar 2021. AECOM commented on 23 Apr 2021. Bestwise resubmitted formally on 19 Jun 2021. P&M0047 (rev. 1) for RAS pump was resubmitted on 17 Apr 2021. AECOM commented on 12 May 2021, Bestwise resubmitted formally on 19 Jun 2021. P&M0073 & 0074 (rev.0) for aeration blower and air scouring blower was submitted to AECOM formally on 19 Jun 2021. Finalized material submission shall be submitted by 30 June 2022.
	Submission of P&ID Drawing	9/6/2020	10/30/2020	5/14/2021	7/2/2021	Task Completed						DWG0049 (Rev.1) was resubmitted on 2 Jul 2021.
	Submission of GA Drawing	3/31/2021	2/18/2021	5/14/2021	6/30/2022	56%						DWG0121 (rev.1) was resubmitted to AECOM on 17 Jul 2021 Finalized drawings shall be submitted by 30 June 2022.
	Submission of Electrical Drawing	4/15/2021	1/15/2021	5/14/2021	6/30/2022	59%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. Electrical GA under DWG0079 (rev.1) was resubmitted on 8 Jul 2021. Finalized drawings shall be submitted by 30 June 2022.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	7/21/2022	44%				-		
6B.2.6 Deodorisation System (EQT-001 - Deodorization Unit)	Tender award (C11)	4/25/2020	4/25/2020	5/12/2020	5/12/2020	Task Completed				100%	Bestwise	Bestwise submitted tender report on 13 May 2020. AECOM commented on 23 July 2020, Bestwise to resubmit.
	Acceptance of tender award (C11)	5/13/2020	5/13/2020	5/21/2020	5/21/2020	Task Completed				100%		
	Submission of Contractor's Design for Deodorisation System , DOU No. 1 (CDS0019 & CDS0045)	9/6/2020	9/6/2020	5/14/2021	12/31/2021	92%				-		Design Calculation (Rev.0) was submitted on 24 Nov 2020. AECOM commented on 6 Jan 2021, Bestwise to resubmit. Bestwise submitted CDS0045 on 3 June 2021. Finalized design shall be submitted by 31 Dec 2021. (follow Inlet Works)
	Submission of P&ID Drawing of DOU No. 1	9/6/2020	8/5/2020	5/14/2021	7/2/2021	Task Completed				-	Bestwise	Bestwise resubmitted rev.3 on 29 Mar 2021. AECOM accepted subject to comments on 13 Apr 2021.
	Submission of GA Drawing of DOU No. 1	9/6/2020	9/6/2020	5/14/2021	12/31/2021	92%						GA submitted on 21 Jun 2021 Finalized drawings shall be submitted by 31 Dec 2021. (follow Inlet Works)
	Submission of Electrical Drawing of DOU No. 1	3/21/2021	1/30/2021	5/14/2021	12/31/2021	89%						Control wiring diagrams was resubmitted on 1 April 2021. AECOM commented on 23 Apr 2021. Bestwise to resubmit. Finalized drawings shall be submitted by 31 Dec 2021. (follow Inlet Works)
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	1/21/2022	76%				-		
	Submission of Contractor's Design for Deodorisation System , DOU No. 2A (CDS0019 & CDS0048)	9/6/2020	9/6/2020	5/14/2021	6/30/2022	67%				-		Design Calculation (Rev.0) was submitted on 24 Nov 2020. AECOM commented on 6 Jan 2021, Bestwise to resubmit. Bestwise submitted CDS0048 on 17 June 2021. Finalized design shall be submitted by 30 June 2022. (follow BR2A2B)
	Submission of P&ID Drawing of DOU No. 2A	9/6/2020	8/5/2020	5/14/2021	7/2/2021	Task Completed				-	Bestwise	Bestwise resubmitted rev.3 on 29 Mar 2021. AECOM accepted subject to comments on 13 Apr 2021.
	Submission of GA Drawing of DOU No. 2A	9/6/2020	8/3/2020	5/14/2021	6/30/2022	69%				-	Bestwise	Bestwise submitted (rev.1) on 30 Oct 2020. AECOM commented on 16 Dec 2020. Bestwise to resubmit. Finalized drawing shall be submitted by 30 June 2022. (follow BR2A2B)
	Submission of Electrical Drawing of DOU No. 2A	3/21/2021	1/26/2021	5/14/2021	6/30/2022	58%						Bestwise submitted (rev.0) on 26 Jan 2021, AECOM commented on 4 Feb 2021. Bestwise to resubmit. Finalized drawing shall be submitted by 30 June 2022. (follow BR2A2B)
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	7/21/2022	44%				-		
	Submission of Contractor's Design for Deodorisation System , DOU No. 3A (CDS0019)	9/6/2020	9/6/2020	5/14/2021	10/21/2021	Task Completed				-		Design Calculation (Rev.0) was submitted on 24 Nov 2020. AECOM commented on 6 Jan 2021, Bestwise to resubmit. Finalized design was submitted on 21 Oct 2021.
	Submission of P&ID Drawing of DOU No. 3A	9/6/2020	8/5/2020	5/14/2021	7/2/2021	Task Completed				-	Bestwise	Bestwise resubmitted rev.3 on 29 Mar 2021. AECOM accepted subject to comments on 13 Apr 2021.
	Submission of GA Drawing of DOU No. 3A	9/6/2020	7/8/2020	5/14/2021	11/19/2021	101%				-	Bestwise	Bestwise submitted (rev.1) on 28 Oct 2020. AECOM commeneted on 16 Dec 2020. Bestwise resubmitted on 24 June 2021. Finalized drawing shall be submitted by 19 Nov 2021.
	Submission of Electrical Drawing of DOU No. 3A	3/21/2021	2/26/2021	5/14/2021	11/19/2021	102%						Bestwise submitted on 17 Apr 2021. AECOM commented on 27 Apr 2021. Bestwise to resubmit. GA submitted on 24 Jun 2021 Finalized drawing shall be submitted by 19 Nov 2021.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	12/10/2021	92%						
	Submission of Contractor's Design for Deodorisation System , DOU No. 3B (CDS0019 & CDS0049)	9/6/2020	9/6/2020	5/14/2021	6/30/2022	67%						Design Calculation (Rev.0) was submitted on 24 Nov 2020. AECOM commented on 6 Jan 2021, Bestwise to resubmit. Bestwise submitted CDS0049 on 18 June 2021. Finalized design shall be submitted by 30 June 2022.
	Submission of P&ID Drawing of DOU No. 3B	9/6/2020	8/5/2020	5/14/2021	7/2/2021	Task Completed				-	Bestwise	Bestwise resubmitted rev.3 on 29 Mar 2021. AECOM accepted subject to comments on 13 Apr 2021.

	Submission of GA Drawing of DOU No. 3B	9/6/2020	9/6/2020	5/14/2021	6/30/2022	67%						Bestwise submitted DWG0081 (rev.0) on 5 Feb 2021. AECOM commeneted on 12 Mar 2021. Bestwise to resubmit. Finalized drawing shall be submitted by 30 June 2022.
	Submission of Electrical Drawing of DOU No. 3B	3/21/2021	2/22/2021	5/14/2021	6/30/2022	56%						GA submitted on 24 Jun 2021 Finalized drawing shall be submitted by 30 June 2022.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	7/21/2022	44%				-		
04SC008 - Design, Supply and Installation of detailed design for lifting appliances	Acceptance of tender award (C9)	-	-	-	7/6/2020	Task Completed				100%	-	AECOM accepted tender report on 6 July 2020.
	Submission of detailed design for lifting appliances for Inlet Works No. 1 (CDS050-1)	9/6/2020	12/5/2020	9/6/2020	12/31/2021	90%						DWG 0055 (Rev.0) was submitted on 13 Mar 2021. AECOM commented on 20 Apr 2021. Bestwise to resubmit. Bestwise submitted P&M0025 on 15 June 2021. Finalized design shall be submitted by 31 Dec 2021.
	Submission of detailed design for lifting appliances for Primary Sedimentation Tanks (CDS050-2)	9/6/2020	12/5/2020	9/6/2020	5/31/2022	65%						DWG 0054 (Rev.0) was submitted on 18 Jan 2021. AECOM commented on 9 Mar 2021. Bestwise to resubmit. Finalized design shall be submitted by 31 May 2022.
	Submission of detailed design for lifting appliances for BR 2A and 2B (CDS050-3)	9/6/2020	12/5/2020	9/6/2020	5/31/2022	65%						DWG 0065 (Rev.0) was submitted on 18 Jan 2021. AECOM commented on 9 Mar 2021. Bestwise to resubmit. Finalized design shall be submitted by 31 May 2022.
	Submission of detailed design for lifting appliances for MFB (CDS050-4)	9/6/2020	12/5/2020	9/6/2020	5/31/2022	65%						DWG 0066 (Rev.1) was submitted on 1 Mar 2021. AECOM commented on 5 Mar 2021. Bestwise to resubmit. Finalized design shall be submitted by 31 May 2022.
	Submission of detailed design for lifting appliances for Temporary Filtration Tank (CDS050-5)	9/6/2020	12/5/2020	9/6/2020	5/21/2021	Task Completed						DWG 0051 (Rev.2) was resubmitted on 7 May 2021 and acceptance by AECOM subject to condition on 21 May 2021. Bestwise submitted P&M0021 on 21 June 2021.
Building Services System	Submission for MVAC system	N/A	12/10/2020	N/A	6/30/2022	61%						Design calculations and drawings for inlet works was submitted on 16 Dec 2020. AECOM commented on 15 Jan 2021 and 20 Jan 2021. Design calculations and drawings for PST was submitted on 30 Dec 2020. AECOM commented on 22 Jan 2021 and 26 Jan 2021. Design calculations and drawings for MFB2 was submitted on 29 Jan 2021. AECOM commented on 26 Mar 2021. Subletting package resubmitted by 18 Mar 2021. AECOM accepted on 19 Mar 2021. Finalized design shall be submitted by 30 June 2022.
	Submission for Fire Services System	N/A	3/15/2021	N/A	6/30/2022	54%						Subletting Package to be resubmitted by 31 Mar 2021. AECOM accepted on 9 Apr 2021. Drawings: Inlet Works: submitted on 8 June 2021. PST 1-4: submitted on 23 Jun 2021 BR2A &2B: submitted on 8 Jun 2021 MFB 2: submitted on 8 Jun 2021 Finalized design shall be submitted by 30 June 2022.
	Submission for Plumbing and Drainage System	N/A	3/15/2021	N/A	6/30/2022	54%						Subletting Package resubmitted by 10 Mar 2021. AECOM accepted on 12 Mar 2021. Tender invitation was conducted on 15 Mar 2021 and closed on 26 Mar 2021. Finalized design shall be submitted by 30 June 2022.
	Submission for Electrical Services System	N/A	12/10/2020	N/A	6/30/2022	61%						GA for lighting was submitted on 18 Dec 2020. AECOM commented on 6 Jan 2021. Bestwise to resubmit. GA for small power system was submitted in 8 Feb 2021. AECOM commented on 3 Mar 2021. Bestwise to resubmit. Finalized design shall be submitted by 30 June 2022.
	Submission of ELV system	N/A	1/8/2021	N/A	9/30/2022	51%						GA for CCTV was resubmitted on 16 Mar 2021. AECOM commented on 30 Mar 2021. Bestwise resubmitted on 25 Jun 2021. Finalized design shall be submitted by 30 Sep 2022.
	Submission for PV system	N/A	3/15/2021	N/A	6/30/2022	54%						Tender package was submitted to AECOM. Finalized design shall be submitted by 30 June 2022.
SCADA System & PMS	Submission for SCADA system	N/A	2/11/2021	N/A	8/31/2022	50%						Revised SCADA structure was provided via email on 9 Apr 2021 and tender package is under preparation. Finalized design shall be submitted by 31 Aug 2022.
	Submission for PMS system	N/A	3/8/2021	N/A	8/31/2022	48%						Tender package to be resubmitted on 29 June 2021. Finalized design shall be submitted by 31 Aug 2022.
	Submission for CMMS & IDMS system	N/A	6/1/2021	N/A	8/31/2022	38%						Finalized design shall be submitted by 31 Aug 2022.
Section 2 of Works												
Lightning Protection System for DOU3A (underground)	Submission and Acceptance for Lightning Protection System Design	12/6/2021	12/6/2021	1/31/2022	1/31/2022							
	Material Delivery	12/15/2022	12/15/2022	3/31/2022	3/31/2022							
	Installation Work	1/2/2022	1/2/2022	12/31/2022	12/31/2022							Underground works subject to site coordination
	Testing & Commissioning	1/7/2023	1/7/2023	1/31/2023	1/31/2023							
Lightning Protection System for Inlet Works (underground)	Submission and Acceptance for Lightning Protection System Design	12/20/2021	12/20/2021	1/31/2022	1/31/2022							

	Material Delivery	12/15/2022	12/15/2022	3/31/2022	3/31/2022								
	Installation Work	2/15/2022	2/15/2022	10/30/2022	10/30/2022								Underground works subject to site coordination
	Testing & Commissioning	11/1/2022	11/1/2022	11/15/2022	11/15/2022								
Section 3 of Works													
6B.2.12 Provision of New Replacement Filter Plates for Existing Membrane Filter Presses at Existing Sludge Press House	Material Delivery	12/1/2020	12/1/2020	8/8/2021	7/13/2021	Task Completed				-			Handed over to DSD.
	Completion Date of Section 3: 22 September 2021												
Subcontracting													
Temporary Primary Sludge Thickener and its accessories (Sub-programme was provided by Bestwise)	Testing and Comissioning	15/11/2020 -> 15/01/2021*	5/8/2021	22/11/2020 -> 22/01/2021*	12/10/2021	92%				-			The installation of mixing pipe and bypass pipe was completed on 25 Oct 2021. The thickener system has been trial run on 29 Oct 2021 and the commissioning shall be conducted subject to mixing; the installation of FRP maintenance platform was completed while the installation work for wash water infeed pipe connection (primary source) to be completed by end November. The modification work and installation of additional submersible mixer to be carried out subject to confirmation.
Plant and Materials (Marking Scheme)													
PS Clause no. 6B.2.1 Inlet Pump	Tender award	6/5/2020	9/19/2020	10/5/2020	10/7/2020	Task Completed				100%			Technical Submission Evaluation Report was submitted on 5 Oct 2020, Tender report was submitted on 7 Oct 2020. AECOM noted on 8 Oct 2020.
	Acceptance of tender award	6/19/2020	10/17/2020	10/19/2020	11/15/2020	Task Completed				-			
PS Clause no. 6B.2.4 MBR Pre-treatment Screen	Acceptance of marking scheme by the PM	5/15/2020	8/20/2020	9/15/2020	9/1/2020	Task Completed				100%			AECOM accepted on 1 Sep 2020
	Tender invitation	5/29/2020	11/20/2020	9/29/2020	12/11/2020	Task Completed				100%			Tender invitation was conducted on 20 Nov 2020 and returned on 11 Dec 2020. Tender
	Tender award	6/5/2020	12/13/2020	10/5/2020	3/3/2021	Task Completed				100%			Technical Submission Evaluation Report was submitted on 12 Jan 2021. AECOM noted on 22 Jan 2021. Tender Report was submitted on 4 Feb 2021, AECOM commented on 19 Feb 2021, Bestwise submitted supplementary information on 26 Feb 2021. AECOM noted on 3 Mar
PS Clause no. 6B.2.4 Air Diffusion System	Acceptance of marking scheme by the PM	5/15/2020	8/20/2020	9/15/2020	9/1/2020	Task Completed				100%			AECOM accepted on 1 Sep 2020, subject to conditions.
	Tender invitation	5/29/2020	2/17/2021	9/29/2020	3/12/2021	Task Completed				100%			Procurement package would follow the approved format (i.e. aeration blower) Tender invitation was conducted on 17 Feb 2021. Addendum No. 1 was issued on 18 Feb 2021. Tender return date was extended from 26 Feb 2021 to 12 Mar 2021. Tender returned on 12 Mar 2021
	Tender award	6/5/2020	3/18/2021	10/5/2020	4/20/2021	Task Completed				-			Technical Submission Evaluation Report was submitted on 18 Mar 2021. AECOM noted on 30 Mar 2021. Tender Report was submitted on 8 Apr 2021. LOI was issued to supplier.
	Acceptance of tender award	6/19/2020	2/20/2021	10/19/2020	3/12/2021	Task Completed				-			
PS Clause no. 6B.2.4 BR Aeration Blower	Acceptance of marking scheme by the PM	5/28/2020	8/20/2020	9/28/2020	9/1/2020	Task Completed				100%			AECOM accepted on 1 Sep 2020
	Tender invitation	6/11/2020	2/3/2021	10/12/2020	3/3/2021	Task Completed				100%			Procurement package was submitted to AECOM under CGS-066. AECOM replied on 29 Jan 2021. Tender invitation was conducted on 3 Feb 2021. Tender returned on 3 Mar 2021
	Tender award	6/18/2020	3/4/2021	10/19/2020	4/12/2021	Task Completed				-			Technical Submission Evaluation Report was submitted on 10 Mar 2021. AECOM noted on 19 Mar 2021. Tender Report was submitted on 24 Mar 2021. LOI was issued to supplier.
	Acceptance of tender award	7/2/2020	3/4/2021	11/2/2020	3/25/2021	Task Completed				-			AECOM accepted on 1 Sep 2020, subject to conditions.
PS Clause no. 6B.2.4 Membrane Modules, Cassettes / Racks	Tender award	6/18/2020	10/6/2020	10/19/2020	11/2/2020	Task Completed				100%			Technical Submission Evaluation Report was submitted on 14 Oct 2020, Tender report was submitted on 2 Nov 2020. AECOM noted on 4 Nov 2020.
	Acceptance of tender award	7/2/2020	11/3/2020	11/2/2020	11/24/2020	Task Completed				-			
PS Clause no. 6B.2.4 RAS Pump	Tender award	6/18/2020	10/30/2020	10/19/2020	12/2/2020	Task Completed				100%			Technical Submission Evaluation Report was submitted on 6 Nov 2020. Tender report was submitted on 24 Nov 2020, AECOM noted on 2 Dec 2020.
	Acceptance of tender award	7/2/2020	11/21/2020	11/2/2020	12/12/2020	Task Completed				-			