M.O.G.E.

MPRL E&P

Environmental Monitoring Report

for Redevelopment and Enhanced Oil Recovery (EOR) Programme

April 2025 ~ September 2025

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Table 1: List of Acronyms

Acronym	Definition
ALARM	Advancing Life and Regenerating Motherland
API	American Petroleum Institute
Bcf	Billion Cubic Feet
BHA	Bottom-Hole Assembly
CSR	Corporate Social Responsibility
DNA	Deoxyribonucleic Acid
DWQS	Drinking Water Quality Standard
ECC	Environmental Compliance Certificate
ECD	Environmental Conservation Department
EIA	Environmental Impact Assessment
EMoR	Environmental Monitoring Report
EMP	Environmental Management Plan
EOR	Enhanced Oil Recovery
ERP	Emergency Response Plan
ETA	Estimated Time Arrival
GOCS	Gas and Oil Collecting Station
HoDs	Head of Departments
HSG	Health and Safety Guidance
HSE	Health, Safety and Environment
IFC	International Finance Corporation
ISO	International Standard Organization
KPIs	Key Performance Indicators
LPG	Liquefied Petroleum Gas
MEDEVAC	Medical Evacuation
MFO	Mann Field Office
MMbbls	One Million Barrels of Oil
MOGE	Myanma Oil and Gas Enterprise
MONREC	Ministry Of Natural Resources and Environmental Conservation
MYO	MPRL E&P Yangon Office
NEQEG	National Environmental Quality (Emission) Guidelines
PCC	Performance Compensation Contract
PPE	Planning and Production Engineering
PSD	Process Shut-Down / Pump Setting Depth
PTP	Put to Pump
RO	Reverse Osmosis
RSBV	Replaced Out Pump, Bumped Valve
SLC	Superior Low Clay
SMC	Sludge Management Compound
WMC	Waste Management Compound
YCDC	Yangon City Development Committee

1. Executive Summary

Since its founding in 1996, MPRL E&P has become a key player in Myanmar's energy sector, with expertise in both onshore and offshore exploration and production. Our success is built on a commitment to integrity, transparency, and ethical conduct, alongside a strong focus on social and environmental responsibility. We create a positive work environment that encourages employee growth and empowerment, allowing our team to actively contribute to the company's success. Honesty and accountability are central to our mission as we continue to uphold our social and environmental commitments.

This eleventh environmental monitoring report provides a comprehensive overview of our activities and progress from April 2025 to September 2025. It includes key data from monitoring activities, details on improvements to environmental measures outlined in our EMP, and quality assessments of air, noise, soil, and water. These efforts were conducted in partnership with the Magway regional ECD. The report also highlights our waste disposal initiatives, the successful implementation of the EMP and its eight sub-plans, and the challenges faced during daily operations.

Key highlights within the monitoring periods (April 2025 to September 2025)

Environmental Performance

In compliance with our approved EIA and ECC, MPRL E&P and the regional ECD conducted an Environmental Monitoring Survey from July 22 to 24, 2025. The survey successfully covered all key baseline sampling points near our operations, with the exception of Z4GW1 in Shwewargone ward, which was converted into a waste disposal well. Despite facing security and logistical challenges, the survey was completed at the nearest accessible locations.

On May 29, 2025, the deputy director of the Magway regional ECD toured Mann Field to review our 10th EMoR. The visit began with a presentation by our HSE manager and CSR field representative on the company's environmental and social performance. The inspection team then visited several key sites, including the mobile clinic at Layeaintan village, the solar-powered water pumping station at Kyarkan village, and our facilities at GOCS-2, the Warehouse, the WMC, and the produced water injection site at SI-573.

In collaboration with the Regional ECD (Magway), we conducted the following monitoring activities on July 22 to 24, 2025:

- Air and Noise Quality monitoring at points Z3AQN and Z4AQN.
- Soil Quality monitoring at points Z3S1, Z3S2, Z4S1, and Z4S2.

Due to security concerns, Mann Field operations have been restricted to daytime with a reduced crew. As a result, Z3AQN, Z4AQN, Z3S1, Z3S2, Z4S1, and Z4S2 were selected for air, noise, and soil quality monitoring, as they are closest to ongoing operations. The remaining monitoring points are temporarily inaccessible due to security and logistical challenges. Monitoring at these locations will resume when conditions improve.

As part of our scheduled self-monitoring program, MPRL E&P assessed the quality of several water sources. This included our drinking water, discharged water from the Base Camp, domestic water used at the mechanical workshop, hydro-test water from the warehouse, and groundwater near the M-132 injection well.

The Annex contains the laboratory results for all air, noise, water, and soil quality monitoring, along with details of our self-environmental monitoring. Explanations are provided in their respective sections for any parameters that exceeded guideline limits. While all available parameters were tested, some water quality parameters could not be assessed due to laboratory limitations.

Additionally, to address feedback from the ECD on our past reports, we have compared the latest results for air, noise, soil, and water quality against our 2015 baseline data. The specific actions taken to address the ECD's comments are detailed in Article 7 of this report.

The HSE department regularly conducts monthly training sessions, as outlined in our training plan, to promote greater awareness of HSE practices among our workforce. These sessions leverage both internal and external resources, depending on availability. To foster a culture of safety and environmental responsibility, the training covers a variety of impactful topics, including "Post-Earthquake Insights: Strengthening Our Emergency Preparedness", "World Environment Day: Ending Plastic Pollution Globally", "MPRL E&P's Biodiversity Policy and Environmental Policy Refreshment Training", etc.

We actively engage in discussions on ecosystem and biodiversity conservation, water conservation, energy conservation, waste segregation, and waste management during induction training for new hires and at regular safety meetings. These initiatives are designed to foster a comprehensive understanding of HSE principles across our organization.

All the formation water produced was 100% disposed into shut-in wells. The field operations continue to maintain the achievement of zero discharge of produced water since 24 August 2017.

Since 2024, MOGE has drilled an additional exploration well, M-671, under its direct management. As such, this well falls outside the scope of the Mann Field Redevelopment and EOR Program according to the MOGE's guide line. Nevertheless, MPRL E&P remains committed to monitoring the relevant parameters in line with the Environmental Monitoring Plan, as stipulated in the ESIA Report.

MPRL E&P ensures transparency by sharing the authorized EIA report and all environmental monitoring reports through various channels, including our website, government departments, public meeting venues, and project offices.

Upholding the high standards of our ECC and EIA is central to our unwavering commitment to compliance. We continuously monitor and assess our operations to ensure full alignment with all relevant regulations and actively contribute to environmental protection.

Social Performance

From April 2025 to September 2025, MPRL E&P's CSR Program continued to promote inclusive growth, environmental stewardship, and community resilience across Mann Field Communities through a comprehensive range of social investment initiatives. Key focus areas included Community Infrastructure Development, Community Livelihood Development, Educational Partnership, Community Capacity Building, Community Healthcare, Community-led Waste Management, Operational Grievance Mechanism (OGM), Stakeholder Engagement, and the MOGE Employee-Centered CSR Program.

Community Infrastructure Development: The CSR Program delivered four solar-powered water pumping projects in Mann Field Communities, provided classroom furniture and schoolyard improvements at Let Pa Taw School, and prepared new infrastructure in Let Pan Ta Pin and Mann Kyoe Villages. Annual water quality testing and continuous community engagement ensured sustainability and effective operation of these projects.

Community Livelihood Development: Agricultural growth and livelihood resilience were strengthened through the Seed Bank Program, supporting 22 farmers cultivating tomatoes on 6.3 acres, managing seed loans, and distributing inputs such as tomato seeds, fertilizers, and plastic mulches. Marketing support for chickpea harvests further enhanced rural income diversification and strengthened local seed systems.

Educational Partnership Program: Scholarships and skill development opportunities were expanded, with eight students enrolled at No.5 Industrial Training Center (ITC - Magway) and ongoing support for scholars at the State Agriculture and Livestock Institute (SALI - Pwint Phyu) and the University of Medicine (Magway). New scholarship initiatives, including a three-year Diploma in Agriculture and a three-month welding course, attracted nine applicants. Knowledge-sharing sessions, project-based learning, and academic monitoring reinforced vocational and technical skills among local youth.

Community Capacity Building: The Program enhanced local skills through the Summer Program including ThuKhaMain summer school, basic computer class, and both basic and advanced art classes, Online English Learning Program for local students across three community centers, and inter-departmental and volunteer knowledge-sharing sessions. Activities concluded with examinations, final presentations, and certificate ceremonies.

Community Healthcare Program: Mobile clinics operating across six villages provided free healthcare to 24,433 patients through 833 sessions, responding to emergencies and conducting follow-ups with vulnerable patients. Preventive care initiatives included integrating diabetes and hypertension guidelines, health awareness signage, tuberculosis prevention talks, personal hygiene programs for schoolchildren, and proactive screenings. Clinic hygiene and sterilization standards were rigorously maintained to ensure safe and effective services.

Community-led Waste Management Program: The Program promoted environmental stewardship through monitoring waste collection services, supporting 18 Trash Hero Minbu cleanup events engaging 420 participants, and piloting household-level compost stations in Mann Kyoe and Nan U Villages. Awareness campaigns for World Environment Day, Tree Planting Month, and World Cleanup Day engaged hundreds of participants in learning and action on plastic, textile, and organic waste management.

Operational Grievance Mechanism (OGM): Three cases regarding unused pipelines in Mei Bayt Kone and Kyar Kan Villages were successfully resolved, bringing the total resolved cases since 2014 to 190. Timely resolution reinforced MPRL E&P's accountability and responsiveness to community concerns.

Stakeholder Engagement: Continuous engagement included regular meetings with community leaders, volunteers, and Seed Bank Committees, planning discussions for social investment projects, biannual CSR progress reviews with MOGE in Nay Pyi Taw, and site inspections with the Environmental Conservation Department. Newsletters, quarterly CSR progress reports, grievance mechanism reports, and the Communication on Progress Report 2025 to the United Nations Global Compact (UNGC) ensured transparency and strengthened trust.

MOGE Employee-Centered CSR Program: The Program supported MOGE employees and their families through contributions to community and religious events, including donations at Mann Dhamayone, a golf tournament, Waso robe offerings, and a Sabbath day meal donation. Educational support included a full scholarship package for a Mann MOGE employee's son enrolled at No.5 ITC (Magway), covering education, stipend, and meals. These initiatives reinforced employee well-being, cultural values, and long-term development for MOGE families.

Through these initiatives, we reaffirmed our commitment to sustainable development, social responsibility, and long-term impact across Mann Field Communities.

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2. Project Description and Production Information

The Mann Field, discovered in 1970 by MOGE, currently comprises 674 wells under the Mann PCC, of which 284 were producing as of September 2025, while the remaining wells were shut-in. Cumulative production from the Production Enhancement Project has reached 16.4 MMbbls of oil, including 10.46 MMbbls above the normal decline curve, along with 18.8 Bcf of associated gas as of September 2025. Since 2024, MOGE has drilled an additional exploration well, M-671, under its direct management. As such, this well falls outside the scope of the Mann Field Redevelopment and Enhanced Oil Recovery (EOR) Program according to the MOGE's guide line. Nevertheless, MPRL E&P remains committed to monitoring the relevant parameters in line with the Environmental Monitoring Plan, as stipulated in the ESIA Report.

2.1 Mann Field Operation Status

Under the PCC, MPRL E&P is undertaking a re-development operations activity of the Mann Field to improve the environmental performance of the operations.

The operation activity includes:

Infill well drillings – due to the current decline of the field, MOGE and MPRL E&P have been drilling infill wells in main Mann Field areas close to currently producing wells and outside of surrounding communities, however no infill well activity during the last six months.

Deepening Wells – to deepen tens to hundreds of feet from existing wellbore by drilling, no activity of deepening well during six months.

Chemical Treatment –to ensure that oil is maximized from the reservoir by using small amount of chemicals such as paraffin dispersant, paraffin inhibitor, and non-chemical GreenZyme. GreenZyme is a biological liquid enzyme that is not only harmless to any individual's health but also an environmentally friendly product.

Remedial and workover operations – maintain oil production by servicing such as swabbing, scraping and bailing of producing wells.

Improvement of Pumping Unit – pumping units will be / have been repaired to reduce the likelihood of spills in the surrounding areas.

Refurbishments of the Gas and Oil Collecting Stations (GOCS), Flow Pipes and Drain Pits – to ensure the health and safety to surrounding communities and reduce the risk of spills.

Rehabilitation of Shut-in Wells – sealing off shut-in wells to avoid contamination of surrounding and restoring surrounding areas to resemble their original state.

Re-perforations will be undertaken for better control of the well.

Development of Produced Water Management System – produced water will be injected into the shut-in wells.

2.2 Current Operations Summary

2.2.1 Remedial and Work Over Operations within 6 months

The following table shows the monitoring and tracking of the remedial and work-over operations activities within six months.

Table 2: Remedial and Work Over Operation Activities

No.	Service	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Total
		Frequency of Activities						
1	Bailing & Change Tubing	2	2	4	1	2	3	14
2	Bailing Inside Liner		1			1	1	3
3	Bump Valve & RSBV	3	2	4		1		10
4	Change all Tubing		2			2		4
5	Change 5-1/2" Casing Swedge & Casing Nipple	1						1
6	Casing Leakage Repair					1		1
7	Change Wellhead				1	1		2
8	Check BHA and Change all Tubing	4	2	2		1		9
8	Check BHA, Bailing and Change Tubing			2		1	1	4
9	Clean out Bottom	10	3	3	1	2	2	21
10	Drill out Bridge Plug		1					1
11	Fishing				1			1
12	Injectivity Test		1	2	1			4
13	Lower down PSD & Pump Service					1	2	3
14	Pump Service	7	9	10	9	11	5	51
15	Reopen, Pumping Test & Repumping	1	1	1	1	3	1	8
16	Raise Up PSD and Pump Service			1			1	2
17	Recover Sucker Rod & BHA	7	2	5	2			16

No.	Service	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Total
		Frequency of Activities						
18	Replace Polished Rod Liner & Rotator					1	1	2
19	Reset Packer			1	1			2
20	Run in Sucker Rod String & PTP			1				1
21	Scrapping, Bailing & Change Tubing	1	2		5	1		9
22	Swabbing, Bailing & Change Tubing	1	1				2	4
23	Zone Isolation			2		1	2	5
Total Serviced Wells (Monthly)		**37**	**29**	**38**	**23**	**30**	**21**	**178**

2.2.2 Mobile Power Generator Register Lists in Mann Field

The following Plant/ Equipment are being used in Mann Field.

Table 3: Mobile Power Generator List

No	Unit Name	Engine Type	Horse Power	Units
1	P-100	CAT-3408	365HP	1
2	P-82	CAT-3306	270HP	1
3	P-75	Cummins N855-P-236	235HP	1
4	P-70	Cummins N855-P-250	250HP	1
5	P-69	Cummins N855-P-250	250HP	1
6	P-65	Detroit 6V71	260HP	1
7	Tractors	KaSaLa	50HP	3
8	35Tons Tadano Crane	Nissan-RF8	340HP	1
9	416 Backhoe	CAT-4.236	85HP	1
10	950 Forklift	CAT-3304	160HP	1
11	966 Wheel Loader	CAT-3306	200HP	1
12	L-39 Forklift	Nissan – PE6	275HP	1
13	Grader	CAT-3306	200HP	1
14	D8K Dozer	CAT-D342	275HP	1

No	Unit Name	Engine Type	Horse Power	Units
15	GD Mud Pump	CAT-3306	350HP	1
16	OPI Mud Pump	Detroit-8V92	365HP	1
17	JWS Mud Pump	Detroit-12V71	469HP	1
18	15PS King Power Swivel	CAT-3034(C6.6)	173HP	1
19	Power Pack	Deutz-F6L912	63HP	2
20	Welding Machine	Deutz-F3L912	25HP	2
21	Sullair Compressor	CAT-3054	85HP	1
22	55Tons Kato Crane	MITSUBISHI-8DC9 engine	320HP	1
23	Ford Ranger (2Q/6064)	Ford (TDCi engine)	2.2CC (150 HP)	1
24	Wire Line Unit	YAMAHA	10HP	1
25	Blue Truck	Cummins NTC-350	350HP	1
26	White Truck	Cummins NTC-350	350HP	1
27	Vehicle			23
28	Weed Cutting Machine	Honda	1.3 HP	3
29	Weed Cutting Machine	VHV	7.5 HP	1
30	Diesel Engine Water Pump	KEMAGE	4 HP	2
31	Denyo, Genset: DCA-400SPK-II	Komatsu Eng: SA6D140-A	480	1

3. Environmental Management Organization

MPRL E&P is dedicated to allocating necessary resources for the execution and management of the EMP, which includes skilled human resources. The organizational structure responsible for environmental management and implementation of the EMP can be found in Table 4.

Table 4: Environmental Management Organization Roles and Responsibilities

Position	Responsibility
MPRL E&P	
Deputy Chief Executive Officer and Executive Director	Oversee and coordinate all activities on the Project; ultimately responsible for environmental issues. Ensure delivery by the asset of its environmental, and operational targets. Ensure effective communication with all stakeholders.
Field Operations Manager	Technical aspects of the Project include contractor supervision during operations. Responsible for the execution of the Emergency Response Plan including the Oil Spill Contingency Plan. The Field Operations Manager has control over strategic project aspects and interaction with subcontractor staff where project activities take place.
Construction Manager	Technical aspects of the Project including subcontractor supervision during Project implementation.
Assistant HSE Manager / HSE Officer	Ensuring in cooperation with the Environmental Officer, that the Project and subcontractors operate following applicable regulatory environmental requirements and plans. Monitor implementation of environmental protection measures, (on-behalf of Environmental Officer), and assist with technical input into oil spill requirements. The HSE Officer is monitoring the implementation of Health, Safety, and Environmental protection measures, including tracking, inspection, reporting, and assisting with technical input into emergency response procedures and implementation as per the EMP.
Community Liaison Officer	Liaise with local communities, farmers and government regulators on the Project's behalf. Implement environmental awareness and education programmes with communities.
Contractor	
Project Manager	Responsible for subcontractor technical performance and compliance
HSE Manager	Ensure that environmental regulatory requirements are met and that EMP requirements are properly implemented.

4. Highlights on HSE Key Performance Indicators

The Field Management team and HSE team have agreed to set up KPIs for the field operation team. These KPIs are essential to ensure they are realistic, shared, and effectively balance safety with operational goals. Integrating Health, Safety, and Environment (HSE) practices as a vital part of the field operation is a key aspect of sustaining continual improvement.

Achievement vs. Failure based on Set KPIs

In this context, the KPIs of field operation team are systematically monitored and reviewed during the reporting year to identify both the performance attainment and opportunities for enhancement by the end of the specified timeframe. Even under highly challenging conditions, the review indicates successful achievement of the following KPIs.

For Fiscal Year 2025 – 2026

The Mann Field Production Enhancement Project has achieved the total of 4,981,670 man-hours in our Mann Field operations as of 30 September 2025, without a lost-time accident. The accomplishment reflects the hard work of the field team, together with the support of the MOGE team.

In terms of reactive performance, as previously mentioned, there were no lost-time accidents during the fiscal year, and the total number of recordable cases also met the established KPI for the period.

As part of our proactive performance efforts, the field team received **4,485** CARE Cards from 01 April 2025 to 30 September 2025. Reaching over 100% of the **3,600** bi-annual target reflects the organization's steady progress and continued focus on safety and improvement. We analyzed the trends in unsafe actions and conditions by utilizing data from the submitted CARE cards and have the opportunity to apply this analysis for further improvements. These achievements are made possible by the dedication of CARE Card submitters and the continued support from all Heads of Departments (HoDs) and the MOGE Team.

With the ongoing increase in operational activities, we are prioritizing training to strengthen HSE knowledge and staff competency. The implementation of mandatory HSE training and awareness programs has been completed as per the planned schedule. (Refer to section 9.4 HSE Training).

To prevent accidents, protect workers, and ensure that operations are conducted in accordance with industry standards and regulations, as well as to maintain a high level of safety and compliance, Permit to Work audits were performed using a checklist. These audits were carried out 100% in accordance with the plan.

To ensure the safety of staff and assets, multiple inspections were carried out for Lifting Gear, Eye Wash Station, and Wheeled Spill Kits. These inspections successfully met of the set target.

As part of MPRL E&P's commitment to foster a positive HSE culture within the organization, several award programs have been established. The "Outstanding HSE Best Performance" award program aims to bolster the HSE culture, while the "Contribution Award in HSE Activity" recognizes nominated personnel to encourage participation and effectiveness. Additionally, the "Best Quality CARE Card Award" promotes ownership and helps reduce property damage and loss.

To enhance safety performance, mitigate risks, ensure compliance, and foster a safety culture within the organization, individual field workers have HSE Key Performance Indicators (KPIs) established and regularly reviewed as part of their performance monitoring process.

As part of the environmental action plan's implementation, the field team maintained a 100% reinjecting record of disposal of produced water back into the shut-in well. Achieving such a record requires tremendous effort, including proper monitoring and maintenance of injection facilities, control and monitoring of critical data such as injection pressure, volume, and rates, as well as the proper maintenance and servicing of injection wells.

To mitigate environmental impact, to conserve biodiversity, to have positive impact on community health and wellbeing and for the purpose of social cohesion and engagement, Tree Plantation Campaign is conducted in Mann Field.

To practice and evaluate emergency team's response to a man-down situation, ensuring effective communication, timely medical intervention, and efficient evacuation, Man Down & Stretcher Drill Exercises were conducted at the Mann Field.

To encourage the team's emergency response capabilities and assess their readiness, the Field Management team successfully conducted "Fire Drill" and "Chemical Spill Drill" at the Mann Field.

HSE Department organized the flu vaccination program at MYO. The program aimed to achieve a healthier workforce, improved morale, and a safer work environment.

During the six-month reporting period, MPRL E&P recorded one minor spill incident and one near-miss case, both of which were promptly addressed with no property damage or personal injury reported. In line with the company's strong commitment to safety and environmental stewardship, comprehensive investigations were conducted to identify the underlying root causes and contributing factors. Based on the findings, appropriate corrective and preventive actions were developed and implemented to prevent recurrence of similar incidents in the future. These efforts demonstrate MPRL E&P's proactive and professional approach to incident management, reinforcing its culture of continuous improvement, accountability, and operational excellence.

MPRL E&P has successfully secured the first extension of the Environmental Compliance Certificate (ECC) for Mann Field, granted by the Ministry of Natural Resources and Environmental Conservation. This extension is valid for the next five years, extending until March 2029.

5. Environmental Management Plan

The Environmental Management Plan (EMP) aims to enforce compliance with the project's policies and fulfill the mitigation, monitoring, and other commitments outlined in the EIA Report. While the EMP serves as a broad framework document, it is intricately linked to various comprehensive management plans detailed below, each designed to set criteria for meeting specific environmental requirements.

The management plans, which were developed to ensure compliance with specific environmental elements, are described in detail in the EIA report. These plans outline the management and mitigation measures that must be implemented, the responsible parties and timeframe for implementation, and reporting requirements. MPRL E&P is currently implementing and monitoring these plans according to the schedule outlined in the EIA report.

- Waste Management Plan
- Emergency Response Plan (including Fire Risk Management Plan)
- Spill Response Plan
- Health and Hygiene Management Plan
- MEDEVAC Procedures
- Transportation Management Procedures
- Contractor's Environmental Management Plan(s)
- Environmental Monitoring Plan

5.1 Environmental Management System Framework

MPRL E&P's approach to environmental management is based on the ISO 14001 framework and incorporates internal policies, national regulations, and best practices from international sources. The company conducts regular environmental analysis and monitoring to ensure that its business activities have minimal negative impacts on the environment and the communities affected by its operations.

Figure 1: MPRL E&P Environmental Management System Framework

5.2 Waste Management Plan

The Waste Management Plan aims to effectively manage any surplus materials from the construction and operational activities in the Mann Field, ensuring proper handling and disposal of waste.

The waste management plan aims to achieve the following objectives:

- Managing waste in a controlled and environmentally sound manner,
- Complying with all statutory and contractual requirements related to waste management,
- Recovering resources whenever possible and safe for re-use and recycling,
- Recording and tracking all generated waste appropriately.

The waste management plan has been implemented during the operation phases, dividing waste streams into four categories:

1. Hazardous recyclable,
2. Hazardous non-recyclable,
3. Non-hazardous recyclable, and
4. Non-hazardous non-recyclable.

The key steps in the waste management process are:

- Segregating waste into hazardous, general and recyclable categories using suitably labeled bins,
- Transporting bins/drums to approved disposal locations with the waste type clearly labeled on each one,
- Including each waste bin/drum sent on the backload manifest,
- Recording waste transportation in the waste database.

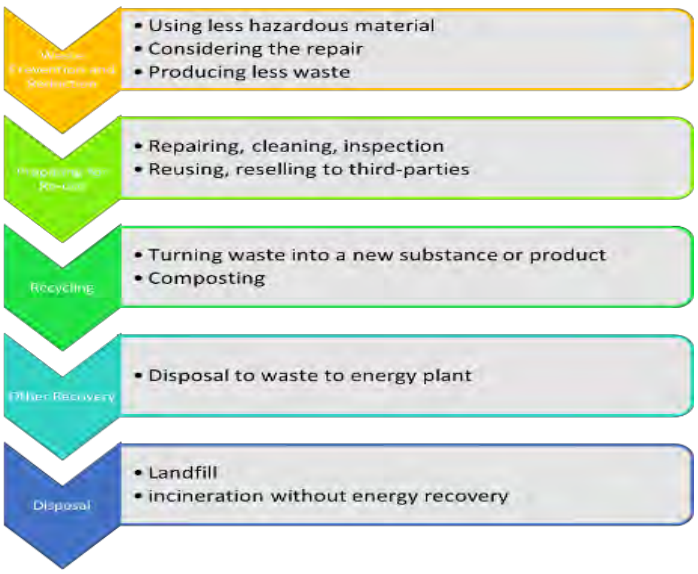

Figure 2: Waste Management Process

5.2.1 Monitoring on Waste Management Status

During the monitoring period of March 2025 to September 2025, the waste management compound facilities remain unchanged from previous monitoring periods.

Existing Solid Waste Management System

The solid waste management framework implemented by MPRL E&P primarily encompasses waste collection, segregation, and recycling, with a limited emphasis on the principles of the 3Rs (Reduce, Reuse, Recycle) that have been introduced.

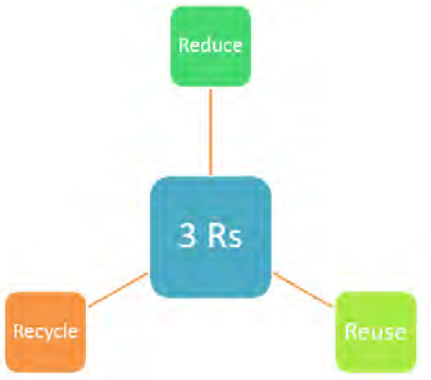

Figure 3: 3Rs

At Mann Field, waste segregation has been implemented, which involves sorting and separating waste based on its characteristics. The waste materials are segregated at the source by providing bins that are marked with universal symbols and labelled in both English and Burmese, and are coloured for storing waste as follows:

- **Green** – General Wastes,
- **Yellow** – Recycle Wastes,
- **Red** – Hazardous Wastes,
- **Black** – Non-Hazardous Wastes,
- **Blue** – Paper

Bins were placed in all locations, including GOCSs, offices, warehouses, workshops, construction sites, base camps, and clinics, for waste collection. The waste collection bins will not be allowed to overflow before they are emptied, and damaged waste storage receptacles will be promptly replaced. A sufficient number of bins were placed at each waste collection point for each type of waste, based on the expected variety and quantity of waste from that location.

Waste of any kind will not be stored permanently or for prolonged periods at the Waste Management Compound. The following procedure has been implemented for the temporary storage of all waste:

- The waste is properly stored in the designated area that is separated from storage areas for other materials/substances,
- The facilities are identified for each designated area, such as Recycle Area, Hazardous Area, etc.

5.2.2 Solid Waste Management in MPRL E&P

The management of waste is a crucial aspect of business operations, and all waste produced is recorded. MPRL E&P is monitoring and ensuring compliance with the National Environmental Quality (Emission) Guidelines and adhering to industry best practices.

Composting

Based on our self-monitoring records spanning six months from April 2025 to September 2025, the composting process has yielded approximately 1,340 kg of compost. While the process is notably rapid during summer, the composting bacteria do not function optimally under neutral conditions in the rainy season.

Figure 4: Composting of Food Waste at WMC

Recycling

At our facility, we collect and sell recyclable materials such as glass, paper, cardboard, plastic bottles, and materials to third-party vendors. To ensure proper recycling, these materials are separated from general waste during the collection process.

General Waste is collected from all areas within the Mann Field Operations and temporarily stored at the Waste Management Compound. Waste collection is carried out periodically every week using Jumbo big bags to reduce plastic bag usage, which can be reused multiple times. Additionally, the plastic bags used in the waste bins are also reused, except for the organic waste bin.

Figure 5: Segregated Recycle Waste at WMC

General Waste Storage in WMC

Figure 6: Waste Management Compound

After being re-sorted, packed and stored in the recycle waste storage area, the recycle materials are disposed of by an authorized third party.

The details of the type and quantity of recycle wastes have been registered using the 'Waste Register' form.

Recycle waste intended for disposal with an approved third-party vendor must be monitored using the "Waste Disposal Contractor Approval Form", which has been approved by the Field Operations Manager and/or the HSE Officer/ Environmental Officer.

Figure 7: Oil Contaminated Waste Stored at WMC

From April 2025 to September 2025, a total of 19,500 kg of hazardous waste is collected from all work-related areas and is properly stored at the Waste Management Compound. The volume of hazardous waste collected was the highest amount in April 2025, with most of it being dry sludge from GOCSs. The dry sludge/ produced sand is temporarily stored at the Waste Management Compound, while the wet sludge is stored at the Sludge Management Compound.

5.2.3 Monitoring Data and Statistics

The Waste Statistics during the monitoring period from April 2025 to September 2025 are as follows:

Table 5: Monthly Waste Monitoring Record

Month	Hazardous Waste (kg.)	Non-hazardous Waste (kg.)	Composting (kg.)
April 2025	16,500	770	290
May 2025	3,000	520	180
June 2025	0	1,977	210
July 2025	0	1,110	270
August 2025	0	1,508	160
September 2025	0	555	230
Total	**19,500**	**6,440**	**1,340**

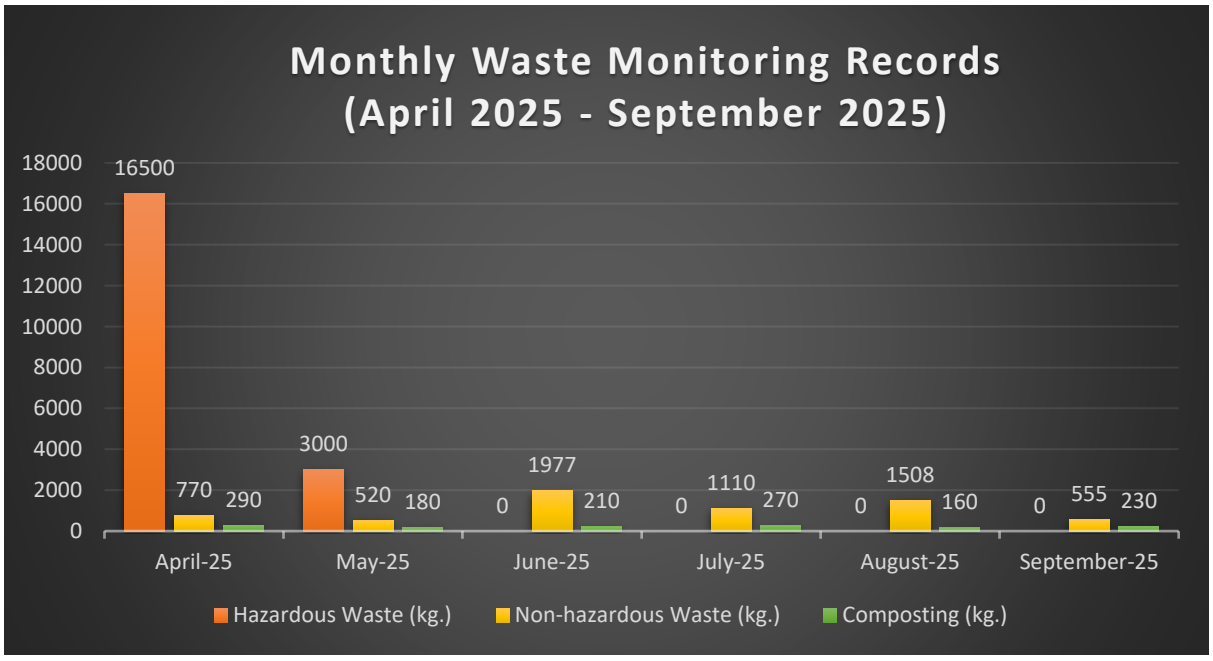

Figure 8: Monthly Waste Monitoring Records from Apr 2025 - Sep 2025

Table 6: Yearly Waste Monitoring Record

Year	Hazardous Waste (kg.)	Non-hazardous Waste (kg.)	Composting (kg.)
2020	1,470	16,267	1,204
2021	96	5,369	1,901
2022	48,113	9,000	2,880
2023	23,718	13,324	2,560
2024	32,800	18,081	2,635
2025 (Jan to Sep)	36,000	9,376	2,025

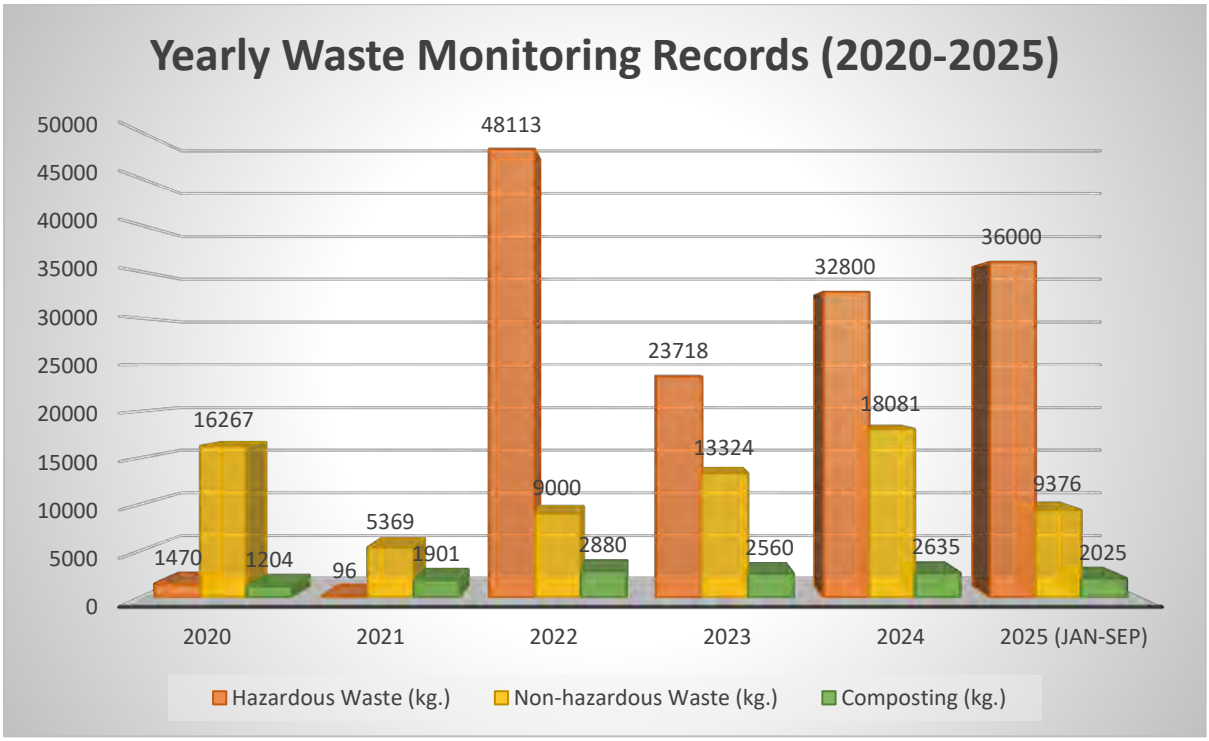

Figure 9: Yearly Waste Monitoring Record (2020 - 2025)

5.3 Emergency Response Plan

MPRL E&P will develop plans and procedures to identify potential environmental accidents, health and safety emergencies, and adverse environmental and social impacts that may arise. These plans will include, but not be limited to, the following measures:

- Notification procedures,
- An emergency response organization with personnel trained to fulfill their roles and responsibilities,
- Adequate and appropriate emergency response equipment readily available to respond to minor incidents,
- Capability to quickly request additional assistance.

MPRL E&P is responsible for managing and responding to emergencies arising from the Project activities in Mann Field. The emergency response plan (ERP) which also covers fire risk management, includes:

- Hierarchy of protection,
- Preparedness and planning for emergencies,
- Employee responsibilities,
- Emergency response procedures,
- Medical emergencies including medevac procedures,
- Natural Disasters (e.g. floods, cyclones, earthquakes) related emergencies,
- Fire and electrical related emergencies, and
- Any other emergency response plan is required by the Republic of the Union of Myanmar Authorities.

5.3.1 Emergency Response Plan Implementation and Progress

MPRL E&P has developed emergency response plans for potential scenarios during field operations. These plans ensure clear communication with staff at all levels and assign responsibilities according to their roles.

MPRL E&P reviews and updates its emergency response plans within predefined timeframes. In the event of an incident, the relevant plan is promptly reassessed and revised as necessary.

Furthermore, regular training sessions are organized to ensure all personnel remain fully informed about emergency protocols, fostering a culture of safety and preparedness across the operation.

Muster Drill Exercise was conducted at the MPRL E&P Base Camp in July 2025.

The exercise aimed to ensure preparedness, assess response time, and verify the effectiveness of muster procedures in an emergency. All personnel participated, and the muster point assembly was completed successfully.

Figure 10: Fire Drill at Base Camp

5.4 Spill Response Plan

MPRL E&P has developed spill response plans and procedures to identify and respond to potential spills and prevent or mitigate any adverse environmental and social impacts that may arise. The plans include but are not limited to:

- Spill control hierarchy,
- Control measures to prevent spills such as proper engineering design, handling, storage and transportation guidelines on hazardous materials,
- Spill response training,
- Spill response organization and procedures as well as spill response PPE and drill requirements.

5.4.1 Spill Response Plan Implementation and Progress

MPRL E&P has developed a comprehensive spill response plan, incorporating key risk control measures such as impermeable bases for facilities, segregated drainage systems, and oil sumps with interceptors. A zero-discharge wastewater recycling system reduces spill risks, while secondary containments are added to well sites, and the sludge compound is equipped to handle spill responses effectively.

Spill response drills are scheduled to enhance understanding of spill procedures and emergency protocols. These drills aim to clarify team responsibilities, improve practices, and raise awareness, ensuring a more efficient response to real spill incidents.

An Oil Spill Drill Exercise was conducted at GOCS-2 on September 2025.

The objective of the exercise was to test emergency preparedness, evaluate the effectiveness of the oil spill response plan, and ensure personnel readiness in the event of an actual spill incident. The drill involved the mobilization of response teams, deployment of spill containment equipment, and implementation of safety procedures.

Figure 11: Spill Drill at GOCS-2

5.5 Health & Hygiene Management Plan

MPRL E&P has established a system to evaluate and manage risks associated with personal health and hygiene, and regularly assesses preventive measures that should be implemented.

MPRL E&P identified hazards as well as developed preventive and mitigation measures related to the health and hygiene of personnel working at Mann Field. The plan includes but is not limited to:

- Responsibility for implementation of the Health and Hygiene Management Plan,
- Identification, prevention, and responses to illnesses such as health-related illnesses and diseases such as those transmitted by insects and parasites,
- Pre-assignment immunization and health screening requirements,
- Preventive measures to avoid snake bites as well as sickness arising from general hygiene issues and travel to and from the Mann Field

5.5.1 Health & Hygiene Management Plan Implementation and Progress

MPRL E&P has established a comprehensive plan to evaluate and manage risks related to personal health and hygiene. The plan includes advice and resources provided by an on-site MPRL E&P site doctor, as well as control measures to mitigate risks associated with diseases prevalent in the operational area. Daily and weekly inspections and reporting are conducted to monitor these measures. The plan is regularly assessed and updated to ensure its ongoing effectiveness.

The HSE (Health, Safety and Environment) team organized a flu vaccination program in May 2025 at Yangon Office to promote employee health and well-being. This initiative plays a crucial role in maintaining the overall health and safety of the workforce, thereby supporting the efficiency and resilience of the operations.

The Heat Stroke Awareness Campaign will be conduct in April 2025 at Mann Field to educate outdoor workers on prevention measures and first aid techniques for managing potential heat hazards in the workplace.

Figure 12: Heat Stroke Awareness Campaign

Figure 13: Flu Vaccination

5.6 MEDEVAC Procedures

To address the challenges posed by the remote location of the Mann Field and the time required for medical evacuations, MPRL E&P has developed specific procedures that must be followed in the event of a medical evacuation (MEDEVAC). To ensure the health and safety of all personnel, anyone rotating to work at the Mann Field undergoes a thorough medical examination before being engaged, and these examinations are repeated at two-year intervals.

MPRL E&P will continue to provide information about the Mann Field's conditions and remoteness to the medical examiner. The medical examiner will assess whether individuals are suitable for working at the Mann Field, taking into account the potential health and safety risks. Any information obtained during the medical examination will be kept confidential between the employee and the medical examiner, unless the employee provides express written permission to share the information with MPRL E&P. MPRL E&P is committed to providing medical evacuation (MEDEVAC) facilities to all personnel working on the MPRL E&P project in Mann Field, including sub-contracted personnel. This includes a field clinic located at the worker base camp, where emergency medical treatment can be provided by MPRL E&P's medical staff. In the event that additional medical support is required, MEDEVAC services are available to transport patients to appropriate medical facilities for further treatment.

5.6.1 MEDEVAC Procedure Implementation and Progress

To reinforced the importance of preparedness to practice and evaluate the team's response to a man-down situation, ensuring effective communication, timely medical intervention, and efficient evacuation, MEDEVAC drills are planned and conducted.

A MEDEVAC drill was conducted on September 2025 to reinforce the importance of preparedness. The exercise evaluated the team's response to a man-down situation, focusing on effective communication, timely medical intervention, and efficient evacuation.

Figure 14: MEDEVAC Drill at Downhole Workshop

5.7 Transportation Management Procedures

The Transportation Management Procedures aim to establish strict controls over traffic routes, speed limits, road safety requirements, vehicle loading and maintenance measures, as well as response procedures to traffic-related emergencies. These measures are implemented to ensure the safe and efficient transportation of personnel and equipment. The following management actions are covered under Transportation Management Procedures:

- Good practices on rest regime, timing routes and speed of driving,
- Safety rules related to MPRL E&P vehicles usage,
- Procedures for road risk assessment, and
- Procedures to rescue the driver and passenger(s) who fail to get to their check calls or destination by the ETA designated on the Journey Management Plan

5.7.1 Transportation Management Procedures Implementation and Progress

MPRL E&P has established a transport management procedure to control traffic routes, speed limits, road safety requirements, vehicle loading, and maintenance measures. The procedure also includes protocols for responding to traffic emergencies. To maintain high safety standards, MPRL E&P has outsourced transportation to its sister company, M&AS. M&AS follows the same safety rules and regulations as MPRL E&P regarding vehicle usage and practices good measures such as road risk assessments, rest regime, timing routes, speed of driving, and alcohol testing.

Figure 15: Safe Crew Change Activities

5.8 Contractor Environmental Management Plan(s)

The Project will sometimes require engaging contractors to carry out Project activities. The contractors are responsible for performing all work:

- In compliance with relevant national and international HSE legislation and regulations and with other requirements to which the project subscribes,
- In conformance with the Project's EMP, and
- By contractual technical and quality specifications

The Project will also provide a specification for environmental compliance and performance (through approved EIA and EMP and the associated plans) and, as a contractual requirement, the contractor will develop and provide to the Project its specific management plans demonstrating how they intend to comply with the stipulated requirements.

Contractors must also provide documentation detailing their plans for:

- Implementing the measures required in the EIA and this EMP,
- Local content,
- Logistics,
- Community relations

The contractor management plans must conform to the requirements of the Project's overarching plans. Contractor plans will be reviewed and approved by MPRL E&P and incorporated into, and form part of, the Project's overall EMP.

Contractors will be required to self-monitor against their plan and the contractor's compliance with the plan will be routinely monitored by MPRL E&P directly or by third parties. Contractors will be required to submit regular reports of monitoring activities and the Project will review these regularly. An external assurance process will be conducted on an annual basis the results of which will be disclosed after the process.

As a contractual requirement, the subcontractors are required to provide sufficient resources to manage HSE aspects of the work to be performed. This includes providing resources to ensure compliance of next-tier subcontractors and a process for emergency stop-work orders in response to monitoring triggers.

5.8.1 Contractor Environmental Management Plan(s) Implementation

At Mann Field, there may be contractors engaged in activities such as providing MPRL E&P with manpower services, logistic services, catering services, machinery maintenance and repairing of machines and instruments for the field operations. M&AS is one of the companies involved in the MPRL E&P camp rules and fulfilled the environmental-related management plans, including waste management procedures. If there are any contractors or third-party monitoring teams working in the Mann Field, also required to respect and obey MPRL E&P HSE rules and policies.

Figure 16: Contractor Inspections & Load test

6. Environmental Monitoring Plan

The project will conduct monitoring activities to assess compliance with regulatory requirements and to evaluate the effectiveness of operational controls and other measures aimed at mitigating potential impacts.

As a minimum, the following monitoring of the physical environment will be undertaken:

Physical Environmental Monitoring:

- Ambient Air Quality,
- Noise,
- Groundwater Quality,
- Surface-water Quality,
- Soil Quality

In accordance with the EIA commitments, MPRL E&P has been regularly conducting environmental monitoring activities and submitting monitoring reports to the ECD bi-annually. This is the eleventh monitoring report, and it follows the committed monitoring plan from the EIA Report, as stated in Table 8 of the Environmental and Social Monitoring Program (as shown in Table 8.3 of the EIA Report).

Ambient air quality and noise quality monitoring were conducted at Z3AQN and Z4AQN, water samples were collected at seven locations, and soil quality monitoring was carried out at Z3S1, Z3S2, Z4S1 and Z4S2. In addition to this, self-monitoring activities for water analysis were conducted and tested at ALARM lab and ISO Tech lab, and their results were covered in this report.

In addition, self-monitoring activities are involved depending on the management plans and operational control. Based on the activities, the following are stated in Table 7 as MPRL E&P's self-monitoring activities scheduled from Mann Field:

- Vent Gas Monitoring,
- Drinking-Water Monitoring,
- Discharged from Sewage Treatment System,
- Hydro-test Water Quality,
- Monitoring on Wastes

Table 7: MPRL E&P's Self-Monitoring Plan and Schedule

No.	Self-Monitoring Activities	Purpose of Monitoring	Locations	Parameters to be monitored	Frequency
1.	Vent Gas Monitoring	Regular monitor the amount of vent gas connection line, measuring with Echo meter.	All Vent Gas Wells	Methane, CH_4	Monthly and Bi-Annual
2.	Hydrogen Sulfide (H_2S) Monitoring	To fulfill the obligation from the ECC and ensure the safety of operations & personnel living nearby.	All Operating Wells	H_2S(ppm), CO (ppm), O_2(%), and LEL%	Monthly and Bi-Annual
3	Drinking-Water Monitoring	Ensuring Safe Drinking Water for the health of personnel	MPRL E&P Base Camp	pH, Turbidity, Apparent Color, Hardness, Arsenic, Chloride, Lead, Total Dissolved Solids, Iron, Electrical Conductivity, Sulphate, Calcium, Magnesium, Nitrate-Nitrogen	Bi-Annual
4.	Discharged of Sewage Treatment System	To mitigate the pollution of soil and ground water, and environment	MPRL E&P Base Camp	pH, Temperature, TSS, BOD_5, COD, Total Phosphorous, Oil & Grease, Total Nitrogen, Turbidity, Electrical Conductivity, Total Coliforms	Bi-Annual
5.	Hydro-test Water Quality	to monitor the quality of water	Warehouse	BOD_5, COD, Chloride, Heavy Metals (Total), pH, Phenols, Sulfides, Total hydrocarbon content, Total suspended solids	Bi-Annual

No.	Self-Monitoring Activities	Purpose of Monitoring	Locations	Parameters to be monitored	Frequency
6.	Domestic water	to monitor the quality of water	Downhole Workshop & Mechanical Workshop	BOD_5, COD, Ammonia, Arsenic, Cadmium, Chlorine (Total residual), Chromium (hexavalent), Chromium (total), Copper, Cyanide (free), Cyanide (total), Fluoride, Heavy Metals (Total), Iron, Lead, Mercury, Nickel, Oil & Grease, pH, Phenols, selenium, Silver, Sulfides, Temperature increase, Total coliforms, Total phosphorous, Total suspended solids, Zinc	Bi-annual
7.	Ground water (Tube-well)	To monitor the quality of groundwater near wells of chemical treatment for EOR	Ko Win Maung & Ma Nyein (near #132)	pH, DO, Turbidity, Apparent Color, Alkalinity, Hardness, BOD_5, COD, total Nitrogen, total Phosphorous, Oil & Grease, TSS, E. coli, Total coliforms, Arsenic, Barium, Boron, Total Chromium, Flouride, Selenium, Uranium, Electrical Conductivity	Bi-annual
8.	Produced Water Monitoring	Zero discharge by injecting 100% to shut-in wells	All Operating Wells	produced volume and disposal volume	Daily
9.	Monitoring on Wastes	Implementing as per Waste Management Procedure	Waste Management Compound and Sludge Management Compound	General, Recyclable, Organic, Hazardous	Weekly

Table 8: Environmental and Social Monitoring Programme (Construction and Operation Phase)

Project Stage	Potential Impact	Parameters to be Monitored	Location	Measurements	Frequency	Responsibility
At least two weeks before the construction activities for baseline data collection. Construction and Operation	Air Quality	NOx, SO_2, $PM_{2.5}$, PM_{10}, CO. Check compliance with Myanmar National Environmental Quality (Emission) Guidelines (2015).	Z1AQN, Z2AQN, Z3AQN and Z4AQN, locations indicated on Table 5.1 and Figure 5.10	Sampling and analysis of ambient air pollutants to be conducted accordingly to the guidelines of Myanmar NEQEG. Haz-Scanner EPAS Wireless Environmental Perimeter Air Station to be used for measurement.	Monthly monitoring for the first three months during both the construction and operation phase. After the three-month period, a review should be conducted to determine whether the collected data indicates an impact has occurred beyond what has been predicted within the EIA. Should no higher impacts be observed, monitoring can be reduced to a six-monthly or yearly programme. Should higher impacts be observed, monitoring should continue and appropriate actions be taken to alleviate the impacts with an aim to prevent any further impacts from occurring.	MPRL E&P HSE Coordinator

Project Stage	Potential Impact	Parameters to be Monitored	Location	Measurements	Frequency	Responsibility
At least two weeks before the construction activities for baseline data collection. Construction and Operation	Noise	Check compliance with Myanmar National Environmental Quality (Emission) Guidelines (2015)	Z1AQN, Z2AQN, Z3AQN and Z4AQN, locations indicated on Table 5.1 and Figure 5.10	24-hour noise monitoring using the portable sound meter (Lutron, SL-0423SD, unit: dB). Noise level (LAeq) measured and recorded at a ten-minute interval and averaged at an hourly and daily (i.e. 24-hour) interval.	As above	MPRL E&P HSE Coordinator
At least two weeks before the construction activities for baseline data collection. Construction and Operation	Groundwater Quality	In-situ measurements for transparency, temperature, pH, DO, turbidity, colour, alkalinity and hardness. Laboratory analysis of BOD_5, COD, Total Nitrogen, Total Phosphorus, Oil and grease, TSS, E. coli, Arsenic, Barium, Boron, Total Chromium, Floride, Selenium, Uranium	Z1GW, Z2GW, Z3GW and Z4GW, locations indicated on Table 5.11and Figure 5.14	In-situ measurements for transparency, temperature, pH DO, turbidity, colour, alkalinity and hardness. Laboratory analysis of BOD_5, COD, Total Nitrogen, Total Phosphorus, Oil and grease, TSS, E. coli, Arsenic, Barium, Boron, Total Chromium, Floride, Selenium, Uranium	As above	MPRL E&P HSE Coordinator

Project Stage	Potential Impact	Parameters to be Monitored	Location	Measurements	Frequency	Responsibility
At least two weeks before the construction activities for baseline data collection. Construction and Operation	Surface Water Quality	In-situ measurements for transparency, temperature, pH DO, turbidity, colour, alkalinity and hardness. Laboratory analysis of BOD_5, COD, Total Nitrogen, Total Phosphorus, Oil and grease, TSS, E. coli, Arsenic, Barium, Boron, Total Chromium, Fluoride, Selenium, Uranium	Z1SW, Z2SW, Z3SW and Z4SW, locations indicated on Table 5.7 and Figure 5.12	In-situ measurements for transparency, temperature, pH DO, turbidity, colour, alkalinity and hardness. Laboratory analysis of BOD_5, COD, Total Nitrogen, Total Phosphorus, Oil and grease, TSS, E. coli, Arsenic, Barium, Boron, Total Chromium, Fluoride, Selenium, Uranium	As above	MPRL E&P HSE Coordinator
At least two weeks before the construction activities for baseline data collection. Construction and Operation	Soil Quality	pH; Arsenic (As); Lead (Pb); Cadmium (Cd); Copper (Cu); Zinc (Zn); Manganese (Mn); and Iron (Fe). Comparison with the Dutch Standard 2000.	Z1S, Z2S, Z3S and Z4S, locations indicated on Table 5.13 and Figure 5.16	Follow sampling procedure, sample preservation and sample analysis recommended in Myanmar NEQEG. Laboratory analysis of pH; Arsenic (As); Lead (Pb); Cadmium (Cd); Copper (Cu); Zinc (Zn); Manganese (Mn); and Iron (Fe).	As above	MPRL E&P HSE Coordinator

Project Stage	Potential Impact	Parameters to be Monitored	Location	Measurements	Frequency	Responsibility
Construction and Operation	Discharge of treated wastewater and runoff	Check compliance with Myanmar National Environmental Quality (Emissions) Guidelines for site runoff and wastewater discharges (for BOD_5, COD, TSS, oil and grease, pH, total coliform bacteria, total nitrogen, total phosphorus) during construction. Check compliance with Myanmar National Environmental Quality (Emissions) Guidelines for Onshore Oil and Gas Development during operation.	Treated wastewater discharge points at discharge points such as worker camps, GOCS, shut in wells.	In-situ measurements for pH, temperature, dissolved oxygen (DO), electrical conductivity (EC), and turbidity. Laboratory analysis of BOD_5, COD, Total Suspended Solids, Total Nitrogen, Total Phosphorous, Oil and Grease	As above	MPRL E&P HSE Coordinator

Project Stage	Potential Impact	Parameters to be Monitored	Location	Measurements	Frequency	Responsibility
Operation	Vented gas	Check compliance with Myanmar National Environmental Quality (Emissions) Guidelines for Onshore Oil and Gas Development during operation (H_2S)	Three vented gas location (randomly selected)	Real-time measurement	Monthly monitoring for the first three months during operation phase. After the three months' period, a review should be conducted to determine whether the collected data indicates an impact has occurred beyond what has been predicted within the EIA. Should no higher impacts be observed, monitoring can be reduced to a six-monthly or yearly programme. Should higher impacts be observed, monitoring should continue and appropriate actions be taken to alleviate the impacts with an aim to prevent any further impacts from occurring	MPRL E&P HSE Coordinator

7. Complying with ECC Commitments and Follow-up Actions

MPRL E&P is committed to implementing the activities and mitigation measures outlined in the approved Environmental Impact Assessment (EIA) Report and Environmental Compliance Certificate (ECC), specifically in Articles 5 (Environmental Management Plan) and 6 (Environmental Monitoring Plan). We will continue to deliver comprehensive Environmental Monitoring Reports at regular intervals, detailing our self-monitoring activities and implementations, even during challenging periods.

MPRL E&P upholds a solid alliance with both district and regional ECD offices, proactively incorporating and executing their proposed recommendations. Furthermore, we maintain continual communication with pertinent departments and authorities to guarantee timely responses as situations arise.

We had the opportunity to conduct a comprehensive assessment of environmental factors, including air quality, noise levels, and soil condition, in collaboration with the Environmental Conservation Department (Magway). This assessment covered multiple locations, namely Z3AQN, Z4AQN, Z3S1, Z3S2, Z4S1, and Z4S2.

For air and noise quality monitoring, we initially selected Z3AQN and Z4AQN due to their favorable conditions, including security for monitoring devices, a reliable power supply, and proximity to our field operations. As conditions improve, we intend to extend our monitoring activities to the remaining two areas.

To date, we have submitted a total of eleven Bi-Annual Environmental Monitoring Reports to the Environmental Conservation Department. In addition to our collaboration with the ECD, we have actively engaged in self-monitoring activities, including water quality assessments at seven different locations. We remain dedicated to meeting our obligations and adhering to the planned monitoring schedule within the specified timeframe.

Looking ahead, we plan to conduct monitoring activities for air, noise, surface water, groundwater, and soil quality. The scheduling and implementation of these initiatives will be contingent on current socio-political conditions and security considerations.

Table 9: Implementation and Follow-up Actions on ECD's Comments

ရက်စွဲ	၁၂-၆-၂၀၂၀
စာအမှတ်	အရည်အသွေး-၂/ဆစရ (၂၂၆/၂၀၂၀)
ဌာန	ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၊ ညွှန်ကြားရေးမှူးချုပ်ရုံး၊နေပြည်တော်
အကြောင်းအရာ	**MPRL E&P Pte. Ltd မှ မကွေးတိုင်းဒေသကြီး၊ မန်းရေနံမြေတွင် အကောင်အထည်ဖော် ဆောင်ရွက်လျက်ရှိသည့် ကုန်းတွင်းရေနံဖွံ့ဖြိုးတိုးတက်ရေးအစီအစဉ် (Redevelopment and Enhanced Oil Recovery – EOR Programme) ၏ ဒုတိယအကြိမ် ပတ်ဝန်းကျင်ဆိုင်ရာ စောင့်ကြည့်စစ်ဆေးမှုအစီရင်ခံစာ တင်ပြလာခြင်းနှင့်ပတ်သက်၍ အကြောင်းကြားခြင်း**

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှု အခြေအနေ
(က)	လေထုအရည်အသွေးဆိုင်ရာ Parameter ဖြစ်သည့် SO_2 ၏ ရလဒ်အား အမျိုးသား ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ် လွှတ်မှု) လမ်းညွှန်ချက်များ (NEQEGs) ၏ သတ်မှတ်ချက်အတွင်းရှိရေး စောင့်ကြပ်ကြည့်ရှု သွားရန်၊	- သတ်မှတ်ချက်အတွင်းရှိရေး စောင့်ကြပ် ကြည့်ရှုလျက်ရှိပါသည်။ - COVID-19 pandemic & Security Concern ကြောင့် စတုတ္ထနှင့် ပဉ္စမအကြိမ် အစီရင်ခံစာတွင် Third party monitoring survey မပြုလုပ်နိုင်ခဲ့ပါ။ ဆဋ္ဌမ အကြိမ် အစီရင်ခံစာ မှစ၍ ထည့်သွင်း တိုင်းတာ စောင့်ကြပ်ကြည့်ရှုလျက် ရှိပါသည်။

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှု အခြေအနေ
(ခ)	ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်တွင် တိုင်းတာမည်ဟု ဖော်ပြပါရှိသော ရေထု အရည်အသွေး (မြေပေါ်ရေ၊ မြေအောက်ရေ) ဆိုင်ရာ Parameter များကို ပြည့်စုံစွာ တိုင်းတာရန်၊	- COVID-19 pandemic & Security Concern ကြောင့် စတုတ္ထနှင့် ပဉ္စမအကြိမ် အစီရင်ခံစာတွင် Third party monitoring survey မပြုလုပ် နိုင်ခဲ့ပါ။ တိုင်းတာသည့် အဖွဲ့အစည်း၊ ရရှိနိုင်သည့် စက်ပစ္စည်းအမျိုးအစား နှင့် ခါတ်ခွဲခန်းအခြေအနေ တို့ပေါ်မူတည်၍ ပြည့်စုံစွာ တိုင်းတာနိုင်ရေး ကြိုးစား ဆောင်ရွက်လျက်ရှိပါသည်။ - နိုင်ငံအတွင်းရှိ ခါတ်ခွဲခန်း များ၌ စစ်ဆေးနိုင်သည့် Parameter များအား စစ်ဆေး တိုင်းတာလျက် ရှိပါသည်။
(ဂ)	မြေပေါ်ရေအရည်အသွေးကို စောင့်ကြည့် စစ်ဆေးမှု အစီရင်ခံစာတွင် NEQEGs နှင့် နှိုင်းယှဉ်ထားပါသဖြင့် အိမ်နီးချင်းနိုင်ငံများ၏ မြေပေါ်ရေအရည်အသွေး သတ်မှတ်စံချိန် စံညွှန်းများနှင့် နှိုင်းယှဉ်ဖော်ပြရန်၊	- ဒုတိယအကြိမ် ပတ်ဝန်းကျင် စောင့်ကြပ်ကြည့်ရှုမှု အစီရင်ခံစာ မှစတင်၍ နှိုင်းယှဉ် ဖော်ပြခဲ့ ပါသည်။ - COVID-19 pandemic & Security Concern ကြောင့် စတုတ္ထနှင့် ပဉ္စမအကြိမ် အစီရင်ခံစာတွင် Third party monitoring survey မပြုလုပ်နိုင်ခဲ့ပါ။ သတ္တမအကြိမ်မှစ၍ မြေပေါ်ရေ အရည်အသွေး စောင့်ကြည့်တိုင်းတာစစ်ဆေးမှု ကို အခြေအနေ ပေးသည့်နေရာ (၄) ခု၌ မကွေးတိုင်းဒေသကြီး ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဦးစီးဌာန နှင့် ပြန်လည် ပြုလုပ်နိုင်ခဲ့ပါသည်။

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှု အခြေအနေ
(ဃ)	ဆူညံသံ သက်ရောက်မှုကို အမျိုးသား ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ် မှု) လမ်းညွှန်ချက်များ၏ သတ်မှတ်ချက် အတွင်းရှိစေရေး ဆောင်ရွက်သွားရန်၊	- အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ အရည် အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက် များ၏ သတ်မှတ်ချက် အတွင်း ရှိစေရေး ဆောင်ရွက် ထားရှိပါသည်။ - COVID-19 pandemic & Security Concern ကြောင့် စတုတ္ထနှင့် ပဉ္စမအကြိမ် အစီရင်ခံစာတွင် Third party monitoring survey မပြုလုပ်နိုင်ခဲ့ပါ။ သတ္တမအကြိမ် စောင့်ကြည့်စစ်ဆေးမှု အစီရင်ခံစာ မှစ၍ မကွေးတိုင်းဒေသကြီး ပတ်ဝန်းကျင် ထိန်းသိမ်းရေး ဦးစီးဌာနနှင့်အတူ နေရာ (၂) ခု၌ စောင့်ကြည့်တိုင်းတာ စစ်ဆေးမှု ပြုလုပ်နိုင် ခဲ့ပါသည်။
(င)	အတည်ပြုပြီး ပတ်ဝန်းကျင်ထိခိုက်မှု ဆန်းစစ်ခြင်း အစီရင်ခံစာတွင် ဖော်ပြပါရှိသည့် ထိခိုက်မှု လျော့ချမည့်နည်းလမ်းများအား လိုက်နာ ဆောင်ရွက်သွားရန်နှင့် စောင့်ကြည့် စစ်ဆေးမှု အစီရင်ခံစာတွင် ထည့်သွင်း ဖော်ပြ သွားရန်။	- လိုက်နာဆောင်ရွက်လျက်ရှိပါသည်။ စောင့်ကြည့် စစ်ဆေးမှု အစီရင်ခံစာတွင် ထည့်သွင်း ဖော်ပြ ထားပါသည်။

ရက်စွဲ	၇-၃-၂၀၂၃
စာအမှတ်	၅/ ထိန်းချုပ်/ စကရ (၀၁) (၄၂၂/၂၀၂၃)
ဌာန	ညွှန်ကြားရေးမှူးရုံး၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၊ မကွေးတိုင်းဒေသကြီး၊ မကွေးမြို့
အကြောင်းအရာ	**မင်းဘူးခရိုင်၊ မင်းဘူးမြို့နယ်၊ မန်းရေနံမြေအတွင်းရှိ Environmental Impact Assessment (EIA) အတည်ပြုပြီး MPRL E&P Pte. Ltd ၏ ရေနံပြန်လည်ဖွံ့ဖြိုးတိုးတက်ရေးအစီအစဉ် (Redevelopment and Enhanced Oil Recovery – EOR Programme) အတွက် (၂၀၂၀ ခုနှစ် ဧပြီလမှ စက်တင်ဘာလအထိ) ၊ (၂၀၂၁ အောက်တိုဘာလမှ ၂၀၂၂ မတ်လအထိ) နှင့် (၂၀၂၂ ဧပြီလမှ စက်တင်ဘာလအထိ) စောင့်ကြပ်ကြည့်ရှုမှုအစီရင်ခံစာ များနှင့် ပတ်သက်၍ အကြောင်းကြားခြင်း**

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှုအခြေအနေ
(က)	ကုမ္ပဏီမှ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာ လိုက်နာ ဆောင်ရွက်မှု သက်သေခံလက်မှတ်၏ အပိုဒ် (B1) အရ အတည်ပြုအစီရင်ခံစာ ဇယား (၈.၃) တွင် ဖော်ပြထားသော ကတိကဝတ်များအား အကောင်အထည်ဖော် ဆောင်ရွက်သွားရန်၊	- သတ်မှတ်ချက်အတွင်းရှိရေး စောင့်ကြပ် ကြည့်ရှုလျက် ရှိပါသည်။
(ခ)	ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေးများ တိုင်းတာစစ်ဆေးရာတွင် တိုင်းတာစစ်ဆေးမှု ရလဒ်များအပေါ်မူတည်၍ အကျိုးအကြောင်း ခိုင်လုံစွာ ဖော်ပြရန်၊	- (၆) လပတ် ပတ်ဝန်းကျင် စောင့်ကြပ် ကြည့်ရှုမှု အစီရင်ခံစာများတွင် ထည့်သွင်း တင်ပြလျက်ရှိပါသည်။

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှုအခြေအနေ
(ဂ)	ကုမ္ပဏီမှ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာ လိုက်နာ ဆောင်ရွက်မှု သက်သေခံလက်မှတ်၏ အပိုဒ် (C3) အရ စီမံကိန်း၏ လုပ်ဆောင်မှုများ၊ Sites (သို့) ဆိုးရွားသော ထိခိုက်မှုများ ပြောင်းလဲမှုရှိပါက ပြန်လည်ပြင်ဆင်ထားသည့် EMP အား စိစစ်နိုင်ရန် နှင့် အတည်ပြုနိုင်ရန် အတွက် ECD သို့တင်ပြသွားရန်၊	- စီမံကိန်း၏ လုပ်ဆောင်မှုများ/ ဆိုးရွားသော ထိခိုက်မှုများ ပြောင်းလဲမှု ရှိပါက တင်ပြသွားပါမည်။
(ဃ)	ထပ်မံတင်ပြမည့် စောင့်ကြပ်ကြည့်ရှုမှုအစီရင်ခံစာတွင် အတည်ပြုပြီး EIA အစီရင်ခံစာပါ အပိုဒ် (၈.၃) ပတ်ဝန်းကျင် စောင့်ကြပ်ကြည့်ရှုခြင်း အစီအစဉ်တွင် ဖော်ပြထားသည့်အတိုင်း လေထုအရည်အသွေး၊ ဆူညံသံ၊ မြေအောက်ရေအရည်အသွေး၊ မြေပေါ်ရေအရည်အသွေး နှင့် မြေဆီလွှာအရည်အသွေးတို့အား တိုင်းတာစစ်ဆေးသွားရန်၊ တိုင်းတာ စစ်ဆေးမှုရလဒ်များအား Baseline data များနှင့် နှိုင်းယှဉ်ဖော်ပြရန်နှင့် တိုင်းတာစစ်ဆေးမှု ရလဒ်များအား သတ်မှတ်စံချိန်စံညွှန်းအတွင်း ရှိစေရေး စီမံဆောင်ရွက်သွားရန်၊	- ပတ်ဝန်းကျင် စောင့်ကြပ်ကြည့်ရှုခြင်း အစီအစဉ်တွင် ဖော်ပြထားသည့် အတိုင်း တိုင်းတာစစ်ဆေးလျက် ရှိပါသည်။ - တိုင်းတာစစ်ဆေးသည့် အဖွဲ့အစည်း နှင့် တိုင်းတာသည့် စက်ပစ္စည်း၊ ခါတ်ခွဲခန်းမှ တိုင်းတာနိုင်သည့် အခြေအနေ စသည်တို့ပေါ်မူတည်၍ ကျန်ရှိ parameter များကို တိုင်းတာ စစ်ဆေးနိုင်ရေး ဆောင်ရွက်သွားမည် ဖြစ်ပါသည်။

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှုအခြေအနေ
(c)	လေထု၊ ရေထု၊ မြေထု၊ ဆူညံသံ အရည်အသွေးများအား အတည်ပြုပြီး EIA အစီရင်ခံစာတွင် ပါရှိသည့် သတ်မှတ် Parameter များ၊ သတ်မှတ်နေရာများအတိုင်း တိုင်းတာသွားရန် နှင့် လုပ်ကွက်အတွင်း တိုင်းတာသည့်နေရာ၊ location point များနှင့် နမူနာ ကောက်ယူသည့်နေရာများအား Google Map ဖြင့်လည်းကောင်း၊ Layout plan ဖြင့်လည်းကောင်း ထည့်သွင်းဖော်ပြရန်နှင့် တိုင်းတာသည့် ရလဒ်များကို အချိန် ပါသည့် မှတ်တမ်းဓါတ်ပုံများနှင့်တကွ ဖော်ပြရန်၊	- ကိုဗစ်-၁၉ ရောဂါဖြစ်ပွားမှု၊ လုံခြုံရေးအခြေအနေ၊ ခရီးသွားလာ နိုင်မှုအခြေအနေ၊ တိုင်းတာ စစ်ဆေးသည့် အဖွဲ့အစည်း နှင့် တိုင်းတာသည့် စက်ပစ္စည်း၊ ဓါတ်ခွဲခန်းမှ တိုင်းတာနိုင်သည့် အခြေအနေ စသည်တို့ပေါ်မူတည်၍ ပတ်ဝန်းကျင် စောင့်ကြပ်ကြည့်ရှုခြင်း အစီအစဉ်ကို အကောင်အထည်ဖော်ဆောင်ရွက် လျက်ရှိပါသည်။ - လက်ရှိ ဒေသတွင်းအခြေအနေအရ တိုင်းတာနိုင်သည့် နေရာ အကန့် အသတ်ရှိသောကြောင့် နေရာအချို့တွင် သွားရောက် တိုင်းတာ စစ်ဆေးနိုင်မှု မရှိသေးပါ။
(စ)	လေထုအရည်အသွေးတိုင်းတာသည့် Data Result များအား Data Analysis ပြုလုပ်ရန်အတွက် အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များပါ သတ်မှတ်ထားသည့် အချိန်ကာလအတိုင်း တိုင်းတာထားသည့် ရလဒ်များအား Excel Form ဖြင့် ပြည့်စုံစွာ ထည့်သွင်းဖော်ပြရန်၊	- (၆) လပတ် ပတ်ဝန်းကျင်စောင့်ကြပ် ကြည့်ရှုမှု အစီရင်ခံစာများတွင် သတ်မှတ်ထားသည့် အချိန်ကာလ အတိုင်း ထည့်သွင်း တင်ပြလျက်ရှိပါသည်။
(ဆ)	ဂေဟစနစ်ထိန်းသိမ်းရေးအနေဖြင့် ပတ်ဝန်းကျင်စိမ်းလန်း စိုပြေရေး အတွက် ထိန်းသိမ်းကာကွယ်ထားသော သဘာဝ ပေါက်ပင်များအား ကောင်းမွန်စွာ ရှင်သန်နိုင်ရေး၊ ပျက်စီးဆုံးရှုံးမှုများ မဖြစ်ပေါ်စေရေး ဂရုပြုဆောင်ရွက်သွားရန်၊	- ကောင်းမွန်စွာ ရှင်သန်နိုင်ရေး နှင့် ပျက်စီးဆုံးရှုံးမှုများ မဖြစ်ပေါ်စေရေး ဂရုပြု လိုက်နာ ဆောင်ရွက်လျက်ရှိပါသည်။

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှုအခြေအနေ
(၈)	လုပ်ငန်းတွင် မီးဘေးအန္တရာယ်ကာကွယ်ရေးအတွက် မီးသတ်ဦးစီးဌာန၏ လမ်းညွှန်ချက်များအတိုင်း အထူးအလေးထားလိုက်နာဆောင်ရွက်ရန်၊	- မီးသတ်ဦးစီးဌာန၏ လမ်းညွှန်ချက်များအတိုင်း အထူးအလေးထား လိုက်နာ ဆောင်ရွက်လျက် ရှိပါသည်။
(၈၂)	အတည်ပြုပြီး EIA အစီရင်ခံစာအား အများပြည်သူများ သိရှိနိုင်ရေး ကုမ္ပဏီ Website ကဲ့သို့သော အများပြည်သူများ သိရှိနိုင်မည့် နည်းလမ်းများအသုံးပြု၍ လွှင့်တင်ထားရှိရန်၊	- လိုက်နာ ဆောင်ရွက်လျက် ရှိပါသည်။
(၈၃)	အတည်ပြုပြီး အစီရင်ခံစာပါ ကတိကဝတ်များနှင့် ECC ပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များအား အလေးထား လိုက်နာဆောင်ရွက်သွားရန်၊	- အလေးထား လိုက်နာ ဆောင်ရွက် လျက် ရှိပါသည်။
(၈၄)	ကုမ္ပဏီအနေဖြင့် ဒေသခံပြည်သူတို့၏ ဆန္ဒနှင့် သဘောထားများကို အလေးထား လိုက်နာဆောင်ရွက်ရန်နှင့် စောင့်ကြပ်ကြည့်ရှုမှု လုပ်ငန်းစဉ်များကို ပတ်ဝန်းကျင် ထိန်းသိမ်းရေး ဥပဒေ၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး နည်းဥပဒေများ၊ ပတ်ဝန်းကျင်ထိခိုက်မှု ဆန်းစစ်ခြင်း ဆိုင်ရာ လုပ်ထုံးလုပ်နည်း၊ အမျိုးသား ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များနှင့်အညီ ဆက်လက် အကောင်အထည်ဖော် ဆောင်ရွက်သွားရန်၊	- လိုက်နာ အကောင်အထည်ဖော် ဆောင်ရွက်လျက် ရှိပါသည်။

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှုအခြေအနေ
(၄)	စောင့်ကြပ်ကြည့်ရှုမှုအစီရင်ခံစာအား ပတ်ဝန်းကျင်ထိခိုက်မှု ဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း အပိုဒ် (၁၀၉) နှင့်အညီ ရေးဆွဲပြုစု၍ အပိုဒ် (၁၀၈) နှင့်အညီ (၆) လလျှင် (၁) ကြိမ် ပုံမှန်အစီရင်ခံတင်ပြရန်။	- (၆) လ လျှင် တစ်ကြိမ် ပုံမှန် အစီရင်ခံ တင်ပြလျက်ရှိပါသည်။

ရက်စွဲ	၇-၉-၂၀၂၃
စာအမှတ်	၅/ ထိန်းချုပ်/ စကရ (၀၁) (၁၈၆၀/၂၀၂၃)
ဌာန	ညွှန်ကြားရေးမှူးရုံး၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၊ မကွေးတိုင်းဒေသကြီး၊ မကွေးမြို့
အကြောင်းအရာ	**မကွေးတိုင်းဒေသကြီး၊ မင်းဘူးမြို့နယ်၊ မန်းရေနံမြေအတွင်းရှိ Environmental Impact Assessment (EIA) အတည်ပြုပြီး MPRL E&P Pte. Ltd ၏ ရေနံပြန်လည်ဖွံ့ဖြိုးတိုးတက်ရေးအစီအစဉ် (Re-development and Enhanced Oil Recovery – EOR Programme) အတွက် (၂၀၂၂ ခုနှစ်၊ အောက်တိုဘာလ မှ ၂၀၂၃ ခုနှစ်၊ မတ်လအထိ) တင်ပြလာသော (၆)လပတ် စောင့်ကြပ်ကြည့်ရှုမှု အစီရင်ခံစာနှင့်ပတ်သက်၍ အကြောင်းကြားခြင်း**

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှုအခြေအနေ
(က)	လေထုအရည်အသွေး တိုင်းတာထားသည့်ရလဒ်များအား အမျိုးသား ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ (National Environmental Quality Emission Guideline – NEQEG) ပါ သတ်မှတ် Unit ဖြင့် ဖော်ပြရန်၊	- လေထုအရည်အသွေး တိုင်းတာထားသည့် ရလဒ်များအား NEQEG ပါ သတ်မှတ် Unit ဖြင့် ဖော်ပြလျက် ရှိပါသည်။
(ခ)	လုပ်ကွက်အတွင်းရှိ မြေအောက်ရေနှင့် တိုင်းတာ ဖော်ပြထားသော မြေပေါ်ရေအား ဝန်ထမ်းများ သောက်သုံးရေအဖြစ် အသုံးပြုပါက World Health Organization (WHO) ၏ Drinking Water Quality Guideline (2011) (သို့မဟုတ်) ကျန်းမာရေးဝန်ကြီးဌာနမှ ထုတ်ပြန်ထားသော National Drinking Water Quality Standard ဖြင့် နှိုင်းယှဉ်ဖော်ပြရန်၊	- လိုက်နာဆောင်ရွက်လျက် ရှိပါသည်။

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှုအခြေအနေ
(ဂ)	စွန့်ပစ်ရေ အရည်အသွေးတိုင်းတာမှုတွင် Total Coliform bacteria၊ Biochemical Oxygen Demand (BOD)၊ Total Suspended Solid တန်ဖိုးတို့သည် သတ်မှတ်စံချိန် စံညွှန်းထက် ကျော်လွန်နေသည်ကို တွေ့ရှိရသဖြင့် ကျော်လွန်ရသည့် အကြောင်းရင်းအား ဖော်ပြရန်နှင့် သတ်မှတ်စံချိန်စံညွှန်းအတွင်းရှိစေရေး စီမံဆောင်ရွက် သွားရန်၊	- သတ်မှတ်စံချိန်စံညွှန်းထက် ကျော်လွန်ရသည့် အကြောင်းရင်းအား ပတ်ဝန်းကျင် စောင့်ကြပ်ကြည့်ရှုမှု အစီရင်ခံစာ ၏ သက်ဆိုင်ရာ ခေါင်းစဉ်အခန်းများတွင် ထည့်သွင်း ရှင်းလင်းတင်ပြ ထားရှိပါသည်။ သတ်မှတ်စံချိန်စံညွှန်းအတွင်း ရှိစေရေး စီမံဆောင်ရွက်လျက်ရှိပါသည်။
(ဃ)	မြေထုအရည်အသွေးတိုင်းတာမှုတွင် အတည်ပြုပြီး EIA အစီရင်ခံစာပါ သတ်မှတ် Parameter များအား ပြည့်စုံစွာ တိုင်းတာဖော်ပြရန်၊ လိုက်နာဆောင်ရွက်မည့် သတ်မှတ် Guideline ဖြင့် နှိုင်းယှဉ်ဖော်ပြရန်နှင့် Guideline အမည်အား ဖော်ပြရန်၊	- လိုက်နာ ဆောင်ရွက်လျက် ရှိပါသည်။
(င)	ပတ်ဝန်းကျင်အရည်အသွေးများ တိုင်းတာစစ်ဆေးရာတွင် တိုင်းတာစစ်ဆေးမှု ရလဒ်များအပေါ် မူတည်၍ အကျိုး အကြောင်းခိုင်လုံစွာ ဖော်ပြရန်နှင့် ပတ်ဝန်းကျင် အရည်အသွေး တိုင်းတာစစ်ဆေးမှု ရလဒ်များအား ဖော်ပြရာတွင် Unit များ မှန်ကန်စေရေး အလေးထား ဆောင်ရွက်ရန်၊	- အလေးထားလိုက်နာ ဆောင်ရွက်လျက် ရှိပါသည်။

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှုအခြေအနေ
(စ)	ဂေဟစနစ်ထိန်းသိမ်းရေးအနေဖြင့် ပတ်ဝန်းကျင်စိမ်းလန်း စိုပြည်ရေးအတွက် ထိန်းသိမ်းကာကွယ်ထားသော သဘာဝ ပေါက်ပင်များအား ကောင်းမွန်စွာ ရှင်သန်နိုင်ရေး၊ ပျက်စီး ဆုံးရှုံးမှုများ မဖြစ်ပေါ်စေရေး ဂရုပြုဆောင်ရွက်သွားရန်၊	- ဂေဟစနစ် ထိန်းသိမ်းရေး အနေဖြင့် သဘာဝ ပေါက်ပင်များအပေါ် ကောင်းမွန်စွာ ရှင်သန်နိုင်ရေးနှင့် ပျက်စီးဆုံးရှုံးမှု မဖြစ်ပေါ်စေရေး ဂရုပြုဆောင်ရွက်လျက် ရှိပါသည်။
(ဆ)	လုပ်ငန်းတွင် မီးဘေးအန္တရာယ်ကာကွယ်ရေးအတွက် မီးသတ် ဦးစီးဌာန၏ လမ်းညွှန်ချက်များအတိုင်း အထူးအလေးထား လိုက်နာဆောင်ရွက်ရန်၊	- မီးသတ် ဦးစီးဌာန၏ လမ်းညွှန်ချက်များအတိုင်း အထူးအလေးထား လိုက်နာ ဆောင်ရွက်လျက် ရှိပါသည်။
(ဇ)	တင်ပြလာသော စောင့်ကြပ်ကြည့်ရှုမှု အစီရင်ခံစာများနှင့် ပတ်သက်၍ လေထု၊ ရေထု၊ မြေထုအရည်အသွေးအပါအဝင် ပတ်ဝန်းကျင်အရည်အသွေး စောင့်ကြည့်တိုင်းတာမှု ရလဒ်များအရ သတ်မှတ်စံချိန်စံညွှန်းများထက် ကျော်လွန်မှု ရှိနေပါက အတည်ပြုပြီး EIA ပါ Mitigation Measure များ၊ ဆောင်ရွက်မည့် လုပ်ငန်းအစီအစဉ်များနှင့် စောင့်ကြပ် ကြည့်ရှုမှု အစီရင်ခံစာတွင် ဖော်ပြပါရှိသော တိုင်းတာစောင့်ကြည့်မည့် လုပ်ငန်းစဉ်များအတိုင်း ဆက်လက် ဆောင်ရွက်သွားရန်နှင့် ထပ်မံတင်ပြမည့် စောင့်ကြပ်ကြည့်ရှုမှုအစီရင်ခံစာများတွင် ဆောင်ရွက်မည့် အစီအစဉ် များကို ထည့်သွင်းဖော်ပြရန်၊	- မှတ်သား လိုက်နာ ဆောင်ရွက် လျက်ရှိပါသည်။

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှုအခြေအနေ
(ဈ)	ကုမ္ပဏီမှ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာ လိုက်နာ ဆောင်ရွက်မှု သက်သေခံလက်မှတ် Environmental Compliance Certificate (ECC) ၏ အပိုဒ် (B1) အရ အတည်ပြုပြီး EIA အစီရင်ခံစာ၏ ဇယား (၈.၃) တွင် ဖော်ပြထားသော ကတိကဝတ်များအား အကောင် အထည်ဖော် ဆောင်ရွက်သွားရန်၊	- ဖော်ပြထားသော ကတိကဝတ်များအား လိုက်နာ အကောင်အထည်ဖော် ဆောင်ရွက်လျက် ရှိပါသည်။
(ည)	ကုမ္ပဏီမှ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာ လိုက်နာ ဆောင်ရွက်မှု သက်သေခံလက်မှတ် Environmental Compliance Certificate (ECC) ၏ အပိုဒ် (C3) အရ စီမံကိန်း၏လုပ်ဆောင်မှုများ၊ Sites (သို့) ဆိုးရွားသော ထိခိုက်မှုများ ပြောင်းလဲမှုရှိပါက ပြန်လည်ပြင်ဆင်ထားသည့် EMP အား စိစစ်နိုင်ရန်နှင့် အတည်ပြုနိုင်ရန်အတွက် ECD သို့ တင်ပြသွားရန်၊	- စီမံကိန်း၏ လုပ်ဆောင်မှုများ၊ ဆိုးရွားသော ထိခိုက်မှုများ ပြောင်းလဲမှုရှိပါက တင်ပြသွားမည် ဖြစ်ပါသည်။
(ဋ္ဌ)	ကုမ္ပဏီအနေဖြင့် စာချုပ်သက်တမ်းပြီးဆုံးပါက MOGE ထံ ပြန်လည် အပ်နှံသည့်အချိန်တွင် EIA Procedure အပိုဒ် (၁၀၂) နှင့် အပိုဒ် (၁၀၆) တို့အား အလေးထား လိုက်နာ ဆောင်ရွက်သွားရန်၊	- လိုက်နာ ဆောင်ရွက်သွားမည် ဖြစ်ပါသည်။

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှုအခြေအနေ
(၄)	ရေနုံပြန်လည်ဖွံ့ဖြိုးတိုးတက်ရေးအစီအစဉ် (Re-development and Enhanced Oil Recovery – EOR Programme) အတွက် ခွင့်ပြုမိန့်တွင် လိုက်နာရမည့် စည်းကမ်းချက်များအတိုင်း အကောင်အထည်ဖော် ဆောင်ရွက်သွားရန်၊	- ခွင့်ပြုမိန့်ပါ လိုက်နာရမည့် စည်းကမ်းချက်များအတိုင်း အကောင်အထည်ဖော် လိုက်နာဆောင်ရွက်လျက် ရှိပါသည်။
(၅)	EIA Procedure အပိုဒ်(၁၀၆)အရ စီမံကိန်းအဆင့်အားလုံးတွင် ဆိုးကျိုးသက်ရောက်မှုအားလုံးအတွက် စီမံကိန်းနှင့် ဆက်စပ်ဆောင်ရွက်မှုများအား မိမိကိုယ်မိမိ ဘက်စုံ စောင့်ကြပ် ကြည့်ရှုစစ်ဆေးခြင်းကို စဉ်ဆက်မပြတ် လက်တွေ့ဆောင်ရွက်ရမည့်အပြင် သက်ဆိုင်ရာ ဥပဒေများ၊ နည်းဥပဒေများ၊ ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း နှင့် စံချိန်စံညွှန်းများ၊ ပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဆိုင်ရာ လိုက်နာဆောင်ရွက်မှုသက်သေခံလက်မှတ်ပါ စည်းကမ်းချက်များနှင့် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှု အစီအစဉ်ပါ အချက်များကို အလေးထား လိုက်နာဆောင်ရွက်သွားရန်၊	- အလေးထား လိုက်နာ ဆောင်ရွက်လျက် ရှိပါသည်။
(၆)	EIA Procedure အပိုဒ် (၁၀၇) အရ လုပ်ငန်းစီမံကိန်း၏ ပျက်ကွက်မှုတစ်ခုခုကြောင့် အန္တရာယ်ဖြစ်စေနိုင်သော ပတ်ဝန်းကျင်အပေါ် သက်ရောက်မှုဖြစ်နိုင်သည့်ကိစ္စ (သို့မဟုတ်) သယံဇာတ နှင့် သဘာဝပတ်ဝန်းကျင်	- သိရှိလိုက်နာ ဆောင်ရွက် သွားပါမည်။

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှုအခြေအနေ
	ထိန်းသိမ်းရေးဝန်ကြီးဌာနက အမြန်သိရှိရန် လိုအပ်သည့် ကိစ္စကို (၂၄) နာရီအတွင်းလည်းကောင်း၊ အခြားကိစ္စများ အားလုံးတွင် ယင်းဖြစ်စဉ် ဖြစ်ရပ်ကို စတင်သိရှိသည့်အချိန်မှ (၇) ရက်အတွင်းတွင်လည်းကောင်း၊ စီမံကိန်းလုပ်ငန်းပိုင်ရှင်မှ ဝန်ကြီးဌာနသို့ အသိပေးတင်ပြသွားရန်၊	
(ဏ)	အတည်ပြုပြီး EIA အစီရင်ခံစာပါအတိုင်း လိုက်နာ ဆောင်ရွက်မှုနှင့် ပတ်သက်၍ ဆောင်ရွက်တိုးတက်မှု အခြေအနေအား (၆) လလျှင် (၁) ကြိမ် တင်ပြမည့် စောင့်ကြပ် ကြည့်ရှုမှုအစီရင်ခံစာများတွင် ပြည့်စုံစွာ ထည့်သွင်း ဖော်ပြသွားရန်၊	- စောင့်ကြပ် ကြည့်ရှုမှု အစီရင်ခံ စာများတွင် ပြည့်စုံစွာ ထည့်သွင်း တင်ပြလျက် ရှိပါသည်။
(တ)	EIA Procedure အပိုဒ် (၁၁၀) အရ စောင့်ကြပ် ကြည့်ရှုမှုအစီရင်ခံစာအား ဝန်ကြီးဌာနသို့ တင်ပြမည့် နေ့ရက်မှ (၁၀) ရက်အတွင်း အများပြည်သူ သိရှိနိုင်ရန် စီမံကိန်း၏ Website သို့မဟုတ် သင့်တော်သော နည်းလမ်းတစ်ရပ်ရပ်အသုံးပြု၍ အသိပေးထုတ်ပြန် ကြေညာရန် နှင့် ထုတ်ဖော်မည့် Website သို့မဟုတ် နေရာတို့ကို ထပ်မံတင်ပြမည့် စောင့်ကြပ်ကြည့်ရှုမှု အစီရင်ခံစာ၌ ထည့်သွင်းဖော်ပြရန်၊	- တင်ပြပြီးစီးခဲ့သော စောင့်ကြပ် ကြည့်ရှုမှု အစီရင်ခံစာများကို အများပြည်သူ သိရှိနိုင်ရန် ကုမ္ပဏီ Website ၌ အသိပေးထုတ်ပြန် ထားပြီး ဖြစ်ပါသည်။ ထပ်မံတင်ပြမည့် စောင့်ကြပ် ကြည့်ရှုမှု အစီရင်ခံ စာများ၌လည်း ထုတ်ဖော်မည့် Website သို့မဟုတ် နေရာတို့ကို ထည့်သွင်းဖော်ပြ သွားပါမည်။

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှုအခြေအနေ
(ထ)	(၂၀၂၂ ခုနှစ်၊ အောက်တိုဘာလမှ ၂၀၂၃ ခုနှစ်၊ မတ်လအထိ) တင်ပြလာသော စောင့်ကြပ်ကြည့်ရှုမှုအစီရင်ခံစာအား စိစစ် အကြောင်းကြားမည့် အချက်များအပြင် ယခင် စောင့်ကြပ် ကြည့်ရှုမှုအစီရင်ခံစာများအပေါ် စိစစ်ပြန်ကြားချက်များအား ဆက်လက်လိုက်နာ ဆောင်ရွက်သွားရန်နှင့် ထပ်မံတင်ပြမည့် စောင့်ကြပ် ကြည့်ရှုမှု အစီရင်ခံစာတွင် ဆောင်ရွက်ထားရှိမှုများအား ထည့်သွင်း ဖော်ပြရန်၊	- စောင့်ကြပ်ကြည့်ရှုမှု အစီရင်ခံစာ များတွင် ပတ်ဝန်းကျင် ထိန်းသိမ်းရေး ဦးစီးဌာန၏ စိစစ်ပြန်ကြားချက်များအား လိုက်နာ ဆောင်ရွက်ထားရှိမှု အခြေအနေများကို ထည့်သွင်းတင်ပြလျက် ရှိပါသည်။
(ဒ)	အတည်ပြုပြီး အစီရင်ခံစာပါ ကတိကဝတ်များနှင့် ECC ပါ လိုက်နာဆောင်ရွက်ရမည့်အချက်များအား အလေးထား လိုက်နာ ဆောင်ရွက်သွားရန်၊	- အတည်ပြုပြီး အစီရင်ခံစာပါ ကတိကဝတ်များနှင့် ECC ပါ လိုက်နာဆောင်ရွက်ရမည့်အချက်များအား အလေးထား လိုက်နာ ဆောင်ရွက်လျက် ရှိပါသည်။
(ဓ)	ကုမ္ပဏီအနေဖြင့် ဒေသခံပြည်သူတို့၏ ဆန္ဒနှင့် သဘောထားများကို အလေးထားလိုက်နာ ဆောင်ရွက်သွားရန်နှင့် စောင့်ကြပ်ကြည့်ရှုမှု လုပ်ငန်းစဉ်များကို ပတ်ဝန်းကျင်ထိခိုက်မှု ဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း၊ အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ နှင့်အညီ ဆက်လက် အကောင်အထည်ဖော် ဆောင်ရွက်သွားရန်၊	- ဒေသခံပြည်သူတို့၏ ဆန္ဒနှင့် သဘောထားများကို အလေးထား လိုက်နာ ဆောင်ရွက်လျက် ရှိပါသည်။

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှုအခြေအနေ
(နှ)	စောင့်ကြပ်ကြည့်ရှုမှုအစီရင်ခံစာအား ပတ်ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်း ဆိုင်ရာ လုပ်ထုံးလုပ်နည်း အပိုဒ် (၁၀၉) နှင့်အညီ ရေးဆွဲပြုစု၍ အပိုဒ် (၁၀၈) နှင့်အညီ (ဖ) လလျှင် (၁) ကြိမ် ပုံမှန် အစီရင်ခံတင်ပြရန်၊	- ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဦးစီးဌာန သို့ စောင့်ကြပ် ကြည့်ရှုမှု အစီရင်ခံစာ ကို (၆) လလျှင် တစ်ကြိမ် ပုံမှန် အစီရင်ခံ တင်ပြလျက် ရှိပါသည်။

ရက်စွဲ	၃၁-၁၀-၂၀၂၄
စာအမှတ်	၅/ ထိန်းချုပ်/ စကရ (၀၁) (၂၆၉၀/၂၀၂၄)
ဌာန	ညွှန်ကြားရေးမှူးရုံး၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၊ မကွေးတိုင်းဒေသကြီး၊ မကွေးမြို့
အကြောင်းအရာ	**ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း (Environmental Impact Assessment - EIA) အတည်ပြုပြီး MPRL E&P Pte. Ltd ၏ ရေနံပြန်လည်ဖွံ့ဖြိုးတိုးတက်ရေးအစီအစဉ် (Re-development and Enhanced Oil Recovery – EOR Programme) အတွက် သတ္တမအကြိမ် တင်ပြလာသော စောင့်ကြပ်ကြည့်ရှုမှု အစီရင်ခံစာ (၂၀၂၃ ခုနှစ်၊ ဧပြီလ မှ ၂၀၂၃ ခုနှစ်၊ စက်တင်ဘာလအထိ) နှင့်ပတ်သက်၍ အကြောင်းကြားခြင်း**
ရည်ညွှန်းချက်	**(၁) သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန၊ ပြည်ထောင်စုဝန်ကြီးရုံး၏ ၇-၂-၂၀၁၉ ရက်စွဲပါ စာအမှတ် (သစ်တော) ၃(၂)/၁၆(ဃ) (၅၃၆/၂၀၁၉)** **(၂) မကွေးတိုင်းဒေသကြီး ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၊ ညွှန်ကြားရေးမှူးရုံး၏ ၈-၃-၂၀၂၄ ရက်စွဲပါ စာအမှတ် ၅/ထိန်းချုပ်/စကရ (၀၁) (၅၆၈/၂၀၂၄)** **(၃) ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၊ ညွှန်ကြားရေးမှူးချုပ်ရုံး၏ ၂-၁၀-၂၀၂၄ ရက်စွဲပါ စာအမှတ်၊ အရည်အသွေး-၂/ဆစရ(၁၇၅၆/၂၀၂၄)**

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှုအခြေအနေ
(က)	မြေအောက်ရေ အရည်အသွေး စောင့်ကြည့်တိုင်းတာခြင်းနှင့် ပတ်သက်၍ Biological Oxygen Demand (BOD), Total Dissolved Solids (TDS), Total Coliforms, Total Fecal Coliforms, Manganese (Mn),	သောက်သုံးရေအဖြစ် အသုံးပြုပါက စနစ်တကျ သန့်စင်ခြင်း၊ ကျိုချက်ခြင်းများ ပြုလုပ်ရန်

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှုအခြေအနေ
	Sulphate (SO_4) စသည့် parameter များနှင့် မြေပေါ်ရေအရည်အသွေး စောင့်ကြည့်တိုင်းတာခြင်းနှင့်ပတ်သက်၍ Z4SW1 နှင့် Z4SW2 တည်နေရာများ၏ Total Suspended Solid (TDS), Biological Oxygen Demand (BOD) စသည့် parameter များ၏ တိုင်းတာရလဒ်များသည် နှိုင်းယှဉ်ဖော်ပြထားသည့် စံချိန်စံညွှန်းများထက် ကျော်လွန်နေသောကြောင့် သောက်သုံးရေအဖြစ် အသုံးပြုပါက စနစ်တကျ စီမံဆောင်ရွက်ပြီး အသုံးပြုပါရန်၊	ရပ်ရွာလူထုနှင့် တွေ့ဆုံသည့် အခမ်းအနားများတွင် ထည့်သွင်း အသိပေး ပြောကြားလျက် ရှိပါသည်။
(ခ)	စွန့်ပစ်ရေအရည်အသွေး စောင့်ကြည့်တိုင်းတာမှုနှင့် ပတ်သက်၍ Biological Oxygen Demand (BOD) နှင့် Total Coliform bacteria စသည့် parameter များ၏ တိုင်းတာရလဒ်များသည် နှိုင်းယှဉ်ဖော်ပြထားသည့် စံချိန်စံညွှန်းများထက် ကျော်လွန်နေသောကြောင့် အတည်ပြုပြီး EIA အစီရင်ခံစာပါ လျှော့ချမည့် အစီအစဉ်များ နှင့်အညီ ဆောင်ရွက်ပြီး ပတ်ဝန်းကျင်စည်းမျဉ်းမှုများ မဖြစ်ပေါ်စေရေး စနစ်တကျ စီမံဆောင်ရွက်ပါရန်၊	ပတ်ဝန်းကျင်စည်းမျဉ်းမှုများ မဖြစ်ပေါ်စေရေး စနစ်တကျ စီမံဆောင်ရွက် လျက်ရှိပါသည်။
(ဂ)	လုပ်ငန်းဆောင်ရွက်ခြင်းမှ ထွက်ရှိသော စွန့်ပစ်ရေများအား ပြင်ပသို့ တိုက်ရိုက် စွန့်ပစ်ခြင်းမပြုရန်၊ စွန့်ထုတ်မည်ဆိုပါက အမျိုးသား ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ (National Environmental Quality Emission Guidelines – NEQEGs) ပါ စွန့်ထုတ်အရည်အဆင့် သတ်မှတ်ချက်များနှင့်အညီ သန့်စင်ပြီးမှ	စွန့်ပစ်ရေများအား ပြင်ပသို့ တိုက်ရိုက် စွန့်ပစ်ခြင်း မပြုလုပ်ပါ။ သန့်စင်ပြီးမှ စွန့်ထုတ်လျက်ရှိပြီး စွန့်ပစ်ရေကြောင့် ပတ်ဝန်းကျင်စည်းမျဉ်းမှုများ မဖြစ်ပေါ်စေရေး စနစ်တကျ စီမံဆောင်ရွက်လျက်ရှိပါသည်။

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှုအခြေအနေ
	စွန့်ထုတ်ရန်နှင့် စွန့်ပစ်ရေကြောင့် ပတ်ဝန်းကျင်ညစ်ညမ်းမှုများ မဖြစ်ပေါ်စေရေး စနစ်တကျ စီမံဆောင်ရွက်ပါရန်၊	
(ဃ)	လုပ်ငန်းတွင် မီးဘေးအန္တရာယ်ကာကွယ်ရေးအတွက် မီးသတ်ဦးစီးဌာန၏ လမ်းညွှန်ချက်များအတိုင်း အထူးအလေးထား လိုက်နာဆောင်ရွက်ရန်၊	လိုက်နာဆောင်ရွက်လျက် ရှိပါသည်။
(င)	လေထု၊ ရေထု၊ မြေထု အရည်အသွေးအပါအဝင် ပတ်ဝန်းကျင်အရည်အသွေး စောင့်ကြည့်တိုင်းတာမှု ရလဒ်များအရ သတ်မှတ်စံချိန်စံညွှန်းများထက် ကျော်လွန်မှု ရှိနေပါက အတည်ပြုပြီး EIA အစီရင်ခံစာပါ Mitigation Measure များ၊ ဆောင်ရွက်မည့် လုပ်ငန်းအစီအစဉ်များနှင့် စောင့်ကြပ်ကြည့်ရှုမှုအစီရင်ခံစာတွင် ဖော်ပြပါရှိသော တိုင်းတာစောင့်ကြည့်မည့် လုပ်ငန်းစဉ်များအတိုင်း ဆက်လက် ဆောင်ရွက်သွားပါရန်နှင့် နောက်တစ်ကြိမ်တင်ပြမည့် စောင့်ကြပ်ကြည့်ရှုမှုအစီအရင်ခံစာများတွင် ဆောင်ရွက်မည့် အစီအစဉ်များကို ထည့်သွင်းဖော်ပြပါရန်၊	လိုက်နာဆောင်ရွက်လျက် ရှိပါသည်။
(စ)	စီမံကိန်းမှထွက်ရှိလာသည့် စွန့်ပစ်ပစ္စည်းများနှင့် ဘေးအန္တရာယ်ရှိ စွန့်ပစ်ပစ္စည်းများကြောင့် ပတ်ဝန်းကျင်ညစ်ညမ်းမှု မရှိစေရေးအတွက် အတည်ပြုပြီး EIA အစီရင်ခံစာပါ ဆောင်ရွက်မည့် အစီအစဉ်များနှင့်အညီ စနစ်တကျ စီမံဆောင်ရွက်သွားပါရန်နှင့် စောင့်ကြပ်ကြည့်ရှုမှု အစီရင်ခံစာတွင် ဆောင်ရွက်ထားရှိမှု အခြေအနေများအား မှတ်တမ်းဓါတ်ပုံများဖြင့် ထည့်သွင်းဖော်ပြပါရန်၊	စောင့်ကြပ်ကြည့်ရှုမှုအစီရင်ခံစာတွင် ဆောင်ရွက်ထားရှိမှု အခြေအနေများအား မှတ်တမ်းဓါတ်ပုံများဖြင့် ထည့်သွင်းဖော်ပြလျက် ရှိပါသည်။

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှုအခြေအနေ
(ဆ)	လူမှုရေးဆိုင်ရာ တာဝန်သိလုပ်ငန်းများ (Corporate Social Responsibility - CSR) အား အကောင်အထည်ဖော် ဆောင်ရွက်ရန်၊ စီမံကိန်းအနီးဝန်းကျင်ရှိ ဒေသခံပြည်သူများ၊ ဆက်စပ် ပတ်သက်သူများနှင့် စဉ်ဆက်မပြတ် တွေ့ဆုံ ဆွေးနွေးပြီး ၎င်းတို့၏ အကြံပြုချက်နှင့် လိုအပ်ချက်များအား အလေးထား ပေါင်းစပ် ဆောင်ရွက်သွားပါရန်နှင့် ဆောင်ရွက် ထားရှိမှုများအား နောက်တစ်ကြိမ်တင်ပြမည့် စောင့်ကြပ် ကြည့်ရှုမှုအစီရင်ခံစာတွင် မှတ်တမ်း ဓါတ်ပုံများ ပြည့်စုံစွာ ထည့်သွင်းဖော်ပြရန်၊	ဆောင်ရွက် ထားရှိမှုများအား စောင့်ကြပ် ကြည့်ရှုမှုအစီရင်ခံစာများတွင် မှတ်တမ်းဓါတ်ပုံများ ပြည့်စုံစွာ ဖြင့် ပုံမှန် ထည့်သွင်းဖော်ပြလျက် ရှိပါသည်။
(ဇ)	စီမံကိန်းနှင့်ပတ်သက်သည့် ပိုင်ရှင်ပြောင်းလဲခြင်း၊ အစီရင်ခံစာတွင် ဖော်ပြပါရှိသည့် လုပ်ငန်းထုတ်လုပ်မှု ပမာဏထက် ပိုမိုထုတ်လုပ်ခြင်း၊ လုပ်ငန်းလည်ပတ်မှု ဒီဇိုင်းများ ပြောင်းလဲခြင်း၊ လုပ်ငန်းတည်နေရာ ပြောင်းလဲခြင်း၊ လုပ်ငန်းရပ်ဆိုင်းခြင်း (သို့) ပိတ်သိမ်းခြင်း ပြုလုပ်မည်ဆိုပါက အဆိုပါလုပ်ငန်းများ ဆောင်ရွက်ခြင်းမပြုမီ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာနသို့ ကြိုတင်၍ တင်ပြပါရန်၊	လိုက်နာဆောင်ရွက်လျက် ရှိပါသည်။
(ဈ)	အဆိုပါလုပ်ငန်းများအတွက် အတည်ပြုထားသော EIA အစီရင်ခံစာနှင့် အတည်ပြုအကြောင်းကြားစာပါ ကတိကဝတ်များနှင့် ECC ပါ လိုက်နာဆောင်ရွက်ရန် စည်းကမ်းချက်များအား သတ်မှတ် ကာလအတွင်း အချိန်မီပြီးစီးအောင် အကောင်အထည်ဖော် ဆောင်ရွက်ပါရန်၊	လိုက်နာဆောင်ရွက်လျက် ရှိပါသည်။

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှုအခြေအနေ
(ည)	အဆိုပါလုပ်ငန်းအတွက် သက်ဆိုင်ရာ ဌာနမှ ထုတ်ပေးထားသည့် ခွင့်ပြုမိန့်တွင် လိုက်နာရမည့် စည်းကမ်းများအတိုင်း အကောင်အထည်ဖော် ဆောင်ရွက်ပါရန်၊	လိုက်နာဆောင်ရွက်လျက် ရှိပါသည်။
(ဋ္ဌ)	ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း အပိုဒ် (၁၀၆) အရ စီမံကိန်း အဆင့်အားလုံးတွင် ဆိုးကျိုးသက်ရောက်မှု အားလုံးအတွက် စီမံကိန်းနှင့် ဆက်စပ်ဆောင်ရွက်မှုများအား မိမိကိုယ်မိမိ ဘက်စုံ စောင့်ကြပ်ကြည့်ရှု စစ်ဆေးခြင်းကို စဉ်ဆက်မပြတ် လက်တွေ့ဆောင်ရွက်ရမည့်အပြင် သက်ဆိုင်ရာ ဥပဒေများ၊ နည်းဥပဒေများ၊ ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်းနှင့် စံချိန်စံညွှန်းများ၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဆိုင်ရာ လိုက်နာဆောင်ရွက်မှု သက်သေခံ လက်မှတ်ပါ စည်းကမ်းချက်များနှင့် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ်ပါ အချက်များကို အလေးထား လိုက်နာဆောင်ရွက်ပါရန်၊	လိုက်နာဆောင်ရွက်လျက် ရှိပါသည်။
(ဍ)	ပတ်ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း အပိုဒ် (၁၀၇) အရ လုပ်ငန်းစီမံကိန်း၏ ပျက်ကွက်မှုတစ်ခုခု ကြောင့် အန္တရာယ်ဖြစ်စေနိုင်သော ပတ်ဝန်းကျင်အပေါ် သက်ရောက်မှု ဖြစ်လာနိုင်သည့်ကိစ္စ (သို့မဟုတ်) သယံဇာတနှင့် သဘာဝ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဝန်ကြီးဌာနက အမြန်သိရှိရန် လိုအပ်သည့်ကိစ္စကို (၂၄) နာရီအတွင်းလည်းကောင်း၊ အခြားကိစ္စများ	သိရှိ လိုက်နာဆောင်ရွက်လျက် ရှိပါသည်။

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှုအခြေအနေ
	အားလုံးတွင် ယင်းဖြစ်စဉ်ဖြစ်ရပ်ကို စတင်သိရှိသည့်အချိန်မှ (၇) ရက်အတွင်း လည်းကောင်း စီမံကိန်းလုပ်ငန်းပိုင်ရှင်မှ ဝန်ကြီးဌာနသို့ အသိပေးတင်ပြသွားပါရန်၊	
(ဍ)	ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း အပိုဒ် (၁၁၀) အရ စောင့်ကြပ်ကြည့်ရှုမှုအစီရင်ခံစာအား ဝန်ကြီးဌာနသို့ တင်ပြသည့်နေ့ရက်မှ (၁၀) ရက်အတွင်း အများပြည်သူသိရှိနိုင်ရန် စီမံကိန်း၏ Website (သို့) သင့်တော်သော နည်းလမ်း တစ်ရပ်ရပ် အသုံးပြု၍ အသိပေးထုတ်ဖော် ကြေငြာပါရန်၊	ပုံမှန် အသိပေး ထုတ်ပြန် ကြေငြာ လျက်ရှိပါသည်။
(ဎ)	ECC ရရှိပြီးသော လုပ်ငန်းစီမံကိန်းများအနေဖြင့် ECC အား သက်တမ်းတိုးဆောင်ရွက်ရာတွင် လွယ်ကူချောမွေ့စွာ ဆောင်ရွက်နိုင်ရေး အတွက် စောင့်ကြပ်ကြည့်ရှုမှု ဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း (၁၀၈) နှင့်အညီ (၆) လလျှင် (၁) ကြိမ် ရေးဆွဲပြုစု၍ သတ်မှတ်ကာလအတွင်း သတ်မှတ်အရေအတွက် ပြည့်မီအောင် ပုံမှန်အစီရင်ခံစာ တင်ပြပါရန်။	လုပ်ထုံးလုပ်နည်းနှင့်အညီ သတ်မှတ်အရေအတွက် ပြည့်မီအောင် ပုံမှန် အစီရင်ခံ တင်ပြလျက်ရှိပါသည်။

ရက်စွဲ	၃၁-၁၀-၂၀၂၄
စာအမှတ်	၅/ ထိန်းချုပ်/ စကရ (၀၁) (၂၆၈၉/၂၀၂၄)
ဌာန	ညွှန်ကြားရေးမှူးရုံး၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၊ မကွေးတိုင်းဒေသကြီး၊ မကွေးမြို့
အကြောင်းအရာ	**ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း (Environmental Impact Assessment - EIA) အတည်ပြုပြီး MPRL E&P Pte. Ltd ၏ ရေနံပြန်လည်ဖွံ့ဖြိုးတိုးတက်ရေးအစီအစဉ် (Re-development and Enhanced Oil Recovery – EOR Programme) အတွက် အဋ္ဌမအကြိမ် တင်ပြလာသော စောင့်ကြပ်ကြည့်ရှုမှု အစီရင်ခံစာ (၂၀၂၃ ခုနှစ်၊ အောက်တိုဘာလ မှ ၂၀၂၄ ခုနှစ်၊ မတ်လအထိ) နှင့်ပတ်သက်၍ အကြောင်းကြားခြင်း**
ရည်ညွှန်းချက်	**(၁) သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန၊ ပြည်ထောင်စုဝန်ကြီးရုံး၏ ၇-၂-၂၀၁၉ ရက်စွဲပါ စာအမှတ် (သစ်တော) ၃(၂)/၁၆(ဃ) (၅၃၆/၂၀၁၉)** **(၂) မကွေးတိုင်းဒေသကြီး ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၊ ညွှန်ကြားရေးမှူးရုံး၏ ၁၆-၅-၂၀၂၄ ရက်စွဲပါ စာအမှတ် ၅/ထိန်းချုပ်/စကရ (၀၁) (၁၁၂၃/၂၀၂၄)** **(၃) ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၊ ညွှန်ကြားရေးမှူးချုပ်ရုံး၏ ၃-၁၀-၂၀၂၄ ရက်စွဲပါ စာအမှတ်၊ အရည်အသွေး-၂/ဆစရ(၁၇၉၄/၂၀၂၄)**

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှုအခြေအနေ
(က)	မြေအောက်ရေ အရည်အသွေး စောင့်ကြည့်တိုင်းတာခြင်းနှင့် ပတ်သက်၍ Biological Oxygen Demand (BOD), Total Dissolved Solids (TDS), Total Coliforms, Total Fecal Coliforms, Manganese (Mn), Sulphate	သောက်သုံးရေအဖြစ် အသုံးပြုပါက စနစ်တကျ သန့်စင်ခြင်း၊ ကျိုချက်ခြင်းများ ပြုလုပ်ရန်

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှုအခြေအနေ
	(SO_4) စသည့် parameter များနှင့် မြေပေါ်ရေအရည်အသွေး စောင့်ကြည့်တိုင်းတာခြင်းနှင့်ပတ်သက်၍ Z4SW1 နှင့် Z4SW2 တည်နေရာများ၏ Total Suspended Solid (TDS), Biological Oxygen Demand (BOD) စသည့် parameter များ၏ တိုင်းတာရလဒ်များသည် နှိုင်းယှဉ်ဖော်ပြထားသည့် စံချိန်စံညွှန်းများထက် ကျော်လွန်နေသောကြောင့် သောက်သုံးရေအဖြစ် အသုံးပြုပါက စနစ်တကျ စီမံဆောင်ရွက်ပြီး အသုံးပြုပါရန်၊	ရပ်ရွာလူထုနှင့် တွေ့ဆုံသည့် အခမ်းအနားများတွင် ထည့်သွင်း အသိပေး ပြောကြားလျက် ရှိပါသည်။
(ခ)	စွန့်ပစ်ရေအရည်အသွေး စောင့်ကြည့်တိုင်းတာမှုနှင့် ပတ်သက်၍ Lead (Pb) နှင့် Total Coliform bacteria စသည့် parameter များ၏ တိုင်းတာရလဒ်များသည် နှိုင်းယှဉ်ဖော်ပြထားသည့် စံချိန်စံညွှန်းများထက် ကျော်လွန်နေသောကြောင့် အတည်ပြုပြီး EIA အစီရင်ခံစာပါ လျှော့ချမည့် အစီအစဉ်များ နှင့်အညီ ဆောင်ရွက်ပြီး ပတ်ဝန်းကျင်ညစ်ညမ်းမှုများ မဖြစ်ပေါ်စေရေး စနစ်တကျ စီမံဆောင်ရွက်ပါရန်၊	ပတ်ဝန်းကျင်ညစ်ညမ်းမှုများ မဖြစ်ပေါ်စေရေး စနစ်တကျ စီမံဆောင်ရွက် လျက်ရှိပါသည်။
(ဂ)	လုပ်ငန်းဆောင်ရွက်ခြင်းမှ ထွက်ရှိသော စွန့်ပစ်ရေများအား ပြင်ပသို့ တိုက်ရိုက် စွန့်ပစ်ခြင်းမပြုရန်၊ စွန့်ထုတ်မည်ဆိုပါက အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ (National Environmental Quality Emission Guidelines – NEQEGs) ပါ စွန့်ထုတ်အရည်အဆင့် သတ်မှတ်ချက်များ နှင့်အညီ သန့်စင်ပြီးမှ စွန့်ထုတ်ရန်နှင့် စွန့်ပစ်ရေကြောင့်	စွန့်ပစ်ရေများအား ပြင်ပသို့ တိုက်ရိုက် စွန့်ပစ်ခြင်း မပြုလုပ်ပါ။ သန့်စင်ပြီးမှ စွန့်ထုတ်လျက်ရှိပြီး စွန့်ပစ်ရေကြောင့် ပတ်ဝန်းကျင်ညစ်ညမ်းမှုများ မဖြစ်ပေါ်စေရေး စနစ်တကျ စီမံဆောင်ရွက်လျက်ရှိပါသည်။

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှုအခြေအနေ
	ပတ်ဝန်းကျင်ညစ်ညမ်းမှုများ မဖြစ်ပေါ်စေရေး စနစ်တကျ စီမံဆောင်ရွက်ပါရန်၊	
(ဃ)	လုပ်ငန်းတွင် မီးဘေးအန္တရာယ်ကာကွယ်ရေးအတွက် မီးသတ်ဦးစီးဌာန၏ လမ်းညွှန်ချက်များအတိုင်း အထူးအလေးထား လိုက်နာဆောင်ရွက်ရန်၊	လိုက်နာဆောင်ရွက်လျက် ရှိပါသည်။
(င)	လေထု၊ ရေထု၊ မြေထု အရည်အသွေးအပါအဝင် ပတ်ဝန်းကျင်အရည်အသွေး စောင့်ကြည့်တိုင်းတာမှု ရလဒ်များအရ သတ်မှတ်စံချိန်စံညွှန်းများထက် ကျော်လွန်မှု ရှိနေပါက အတည်ပြုပြီး EIA အစီရင်ခံစာပါ Mitigation Measure များ၊ ဆောင်ရွက်မည့် လုပ်ငန်းအစီအစဉ်များနှင့် စောင့်ကြပ်ကြည့်ရှုမှုအစီရင်ခံစာတွင် ဖော်ပြပါရှိသော တိုင်းတာစောင့်ကြည့်မည့် လုပ်ငန်းစဉ်များအတိုင်း ဆက်လက် ဆောင်ရွက်သွားပါရန်နှင့် နောက်တစ်ကြိမ်တင်ပြမည့် စောင့်ကြပ်ကြည့်ရှုမှုအစီအရင်ခံစာများတွင် ဆောင်ရွက်မည့် အစီအစဉ်များကို ထည့်သွင်းဖော်ပြပါရန်၊	လိုက်နာဆောင်ရွက်လျက် ရှိပါသည်။
(စ)	စီမံကိန်းမှထွက်ရှိလာသည့် စွန့်ပစ်ပစ္စည်းများနှင့် ဘေးအန္တရာယ်ရှိ စွန့်ပစ်ပစ္စည်းများကြောင့် ပတ်ဝန်းကျင်ညစ်ညမ်းမှု မရှိစေရေးအတွက် အတည်ပြုပြီး EIA အစီရင်ခံစာပါ ဆောင်ရွက်မည့် အစီအစဉ်များနှင့်အညီ စနစ်တကျ စီမံဆောင်ရွက်သွားပါရန်နှင့် စောင့်ကြပ်ကြည့်ရှုမှု အစီရင်ခံစာတွင် ဆောင်ရွက်ထားရှိမှု အခြေအနေများအား မှတ်တမ်းဓါတ်ပုံများဖြင့် ထည့်သွင်းဖော်ပြပါရန်၊	စောင့်ကြပ်ကြည့်ရှုမှုအစီရင်ခံစာတွင် ဆောင်ရွက်ထားရှိမှု အခြေအနေများအား မှတ်တမ်းဓါတ်ပုံများဖြင့် ထည့်သွင်းဖော်ပြလျက် ရှိပါသည်။

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှုအခြေအနေ
(ဆ)	လူမှုရေးဆိုင်ရာ တာဝန်သိလုပ်ငန်းများ (Corporate Social Responsibility - CSR) အား အကောင်အထည်ဖော် ဆောင်ရွက်ရန်၊ စီမံကိန်းအနီးဝန်းကျင်ရှိ ဒေသခံပြည်သူများ၊ ဆက်စပ်ပတ်သက်သူများနှင့် စဉ်ဆက်မပြတ် တွေ့ဆုံ ဆွေးနွေးပြီး ၎င်းတို့၏ အကြံပြုချက်နှင့် လိုအပ်ချက်များအား အလေးထား ပေါင်းစပ်ဆောင်ရွက်သွားပါရန်နှင့် ဆောင်ရွက် ထားရှိမှုများအား နောက်တစ်ကြိမ်တင်ပြမည့် စောင့်ကြပ်ကြည့်ရှုမှုအစီရင်ခံစာတွင် မှတ်တမ်းဓါတ်ပုံများ ပြည့်စုံစွာ ထည့်သွင်းဖော်ပြရန်၊	ဆောင်ရွက် ထားရှိမှုများအား စောင့်ကြပ်ကြည့်ရှုမှုအစီရင်ခံစာများတွင် မှတ်တမ်းဓါတ်ပုံများ ပြည့်စုံစွာ ဖြင့် ပုံမှန် ထည့်သွင်းဖော်ပြလျက် ရှိပါသည်။
(ဇ)	စီမံကိန်းနှင့်ပတ်သက်သည့် ပိုင်ရှင်ပြောင်းလဲခြင်း၊ အစီရင်ခံစာတွင် ဖော်ပြပါရှိသည့် လုပ်ငန်းထုတ်လုပ်မှု ပမာဏထက် ပိုမိုထုတ်လုပ်ခြင်း၊ လုပ်ငန်းလည်ပတ်မှု ဒီဇိုင်းများ ပြောင်းလဲခြင်း၊ လုပ်ငန်းတည်နေရာ ပြောင်းလဲခြင်း၊ လုပ်ငန်းရပ်ဆိုင်းခြင်း (သို့) ပိတ်သိမ်းခြင်း ပြုလုပ်မည်ဆိုပါက အဆိုပါလုပ်ငန်းများ ဆောင်ရွက်ခြင်းမပြုမီ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာနသို့ ကြိုတင်၍ တင်ပြပါရန်၊	လိုက်နာဆောင်ရွက်လျက် ရှိပါသည်။
(ဈ)	အဆိုပါလုပ်ငန်းများအတွက် အတည်ပြုထားသော EIA အစီရင်ခံစာနှင့် အတည်ပြုအကြောင်းကြားစာပါ ကတိကဝတ်များနှင့် ECC ပါ လိုက်နာဆောင်ရွက်ရန် စည်းကမ်းချက်များအား သတ်မှတ်ကာလအတွင်း အချိန်မီပြီးစီးအောင် အကောင်အထည်ဖော် ဆောင်ရွက်ပါရန်၊	လိုက်နာဆောင်ရွက်လျက် ရှိပါသည်။

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှုအခြေအနေ
(ည)	အဆိုပါလုပ်ငန်းအတွက် သက်ဆိုင်ရာဌာနမှ ထုတ်ပေးထားသည့် ခွင့်ပြုမိန့်တွင် လိုက်နာရမည့် စည်းကမ်းများအတိုင်း အကောင်အထည်ဖော် ဆောင်ရွက်ပါရန်၊	လိုက်နာဆောင်ရွက်လျက် ရှိပါသည်။
(ဋ္ဌ)	ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း အပိုဒ် (၁၀၆) အရ စီမံကိန်း အဆင့်အားလုံးတွင် ဆိုးကျိုးသက်ရောက်မှု အားလုံးအတွက် စီမံကိန်းနှင့် ဆက်စပ်ဆောင်ရွက်မှုများအား မိမိကိုယ်မိမိ ဘက်စုံ စောင့်ကြပ်ကြည့်ရှု စစ်ဆေးခြင်းကို စဉ်ဆက်မပြတ် လက်တွေ့ဆောင်ရွက်ရမည့်အပြင် သက်ဆိုင်ရာ ဥပဒေများ၊ နည်းဥပဒေများ၊ ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်းနှင့် စံချိန်စံညွှန်းများ၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာ လိုက်နာဆောင်ရွက်မှု သက်သေခံ လက်မှတ်ပါ စည်းကမ်းချက်များနှင့် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ်ပါ အချက်များကို အလေးထား လိုက်နာဆောင်ရွက်ပါရန်၊	လိုက်နာဆောင်ရွက်လျက် ရှိပါသည်။
(ဍ)	ပတ်ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း အပိုဒ် (၁၀၇) အရ လုပ်ငန်းစီမံကိန်း၏ ပျက်ကွက်မှုတစ်ခုခု ကြောင့် အန္တရာယ်ဖြစ်စေနိုင်သော ပတ်ဝန်းကျင်အပေါ် သက်ရောက်မှု ဖြစ်လာနိုင်သည့်ကိစ္စ (သို့မဟုတ်) သယံဇာတနှင့် သဘာဝ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဝန်ကြီးဌာနက အမြန်သိရှိရန် လိုအပ်သည့်ကိစ္စကို (၂၄) နာရီအတွင်းလည်းကောင်း၊ အခြားကိစ္စ	သိရှိ လိုက်နာဆောင်ရွက်လျက် ရှိပါသည်။

စဉ်	အကြောင်းကြားစာပါ လိုက်နာဆောင်ရွက်ရမည့် အချက်များ	လိုက်နာဆောင်ရွက်ထားရှိမှုအခြေအနေ
	များအားလုံးတွင် ယင်းဖြစ်စဉ်ဖြစ်ရပ်ကို စတင်သိရှိသည့်အချိန်မှ (၇) ရက်အတွင်း လည်းကောင်း စီမံကိန်းလုပ်ငန်းပိုင်ရှင်မှ ဝန်ကြီးဌာနသို့ အသိပေးတင်ပြသွားပါရန်၊	
(ဍ)	ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း အပိုဒ် (၁၁၀) အရ စောင့်ကြပ်ကြည့်ရှုမှုအစီရင်ခံစာအား ဝန်ကြီးဌာနသို့ တင်ပြသည့်နေ့ရက်မှ (၁၀) ရက်အတွင်း အများပြည်သူသိရှိနိုင်ရန် စီမံကိန်း၏ Website (သို့) သင့်တော်သော နည်းလမ်း တစ်ရပ်ရပ် အသုံးပြု၍ အသိပေးထုတ်ဖော် ကြေငြာပါရန်၊	ပုံမှန် အသိပေး ထုတ်ပြန် ကြေငြာ လျက်ရှိပါသည်။
(ဎ)	ECC ရရှိပြီးသော လုပ်ငန်းစီမံကိန်းများအနေဖြင့် ECC အား သက်တမ်းတိုးဆောင်ရွက်ရာတွင် လွယ်ကူချောမွေ့စွာ ဆောင်ရွက်နိုင်ရေးအတွက် စောင့်ကြပ်ကြည့်ရှုမှု ဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း (၁၀၈) နှင့်အညီ (၆) လလျှင် (၁) ကြိမ် ရေးဆွဲပြုစု၍ သတ်မှတ်ကာလအတွင်း သတ်မှတ်အရေအတွက် ပြည့်မီအောင် ပုံမှန်အစီရင်ခံစာ တင်ပြပါရန်။	လုပ်ထုံးလုပ်နည်းနှင့်အညီ သတ်မှတ်အရေအတွက် ပြည့်မီအောင် ပုံမှန် အစီရင်ခံ တင်ပြလျက်ရှိပါသည်။





Figure 17: Field Inspection of the Regional ECD (Magway) Team

Figure 18: Tree Planting Campaign at the backyard of MPRL E&P Mann Field Base Camp

Figure 19: Tree Planting Campaign near MOGE Guest House

Figure 20: Reusable Batteries Sold to Third-party Waste Recycler

Figure 21: Pumping Unit Fencing at M-554 (Before and After)

Figure 22: MPRL E&P's Biodiversity Policy Awareness Sharing to Field Personnel

Figure 23: HSE Notice Board

Figure 24: Disposal of IT Equipment at YCDC's Designated Site

8. Monitoring Survey & Activities

Throughout the monitoring period spanning from April 2025 to September 2025, each article provides an extensive account of the monitoring surveys and activities carried out. The following is a summary of the monitoring activities conducted:

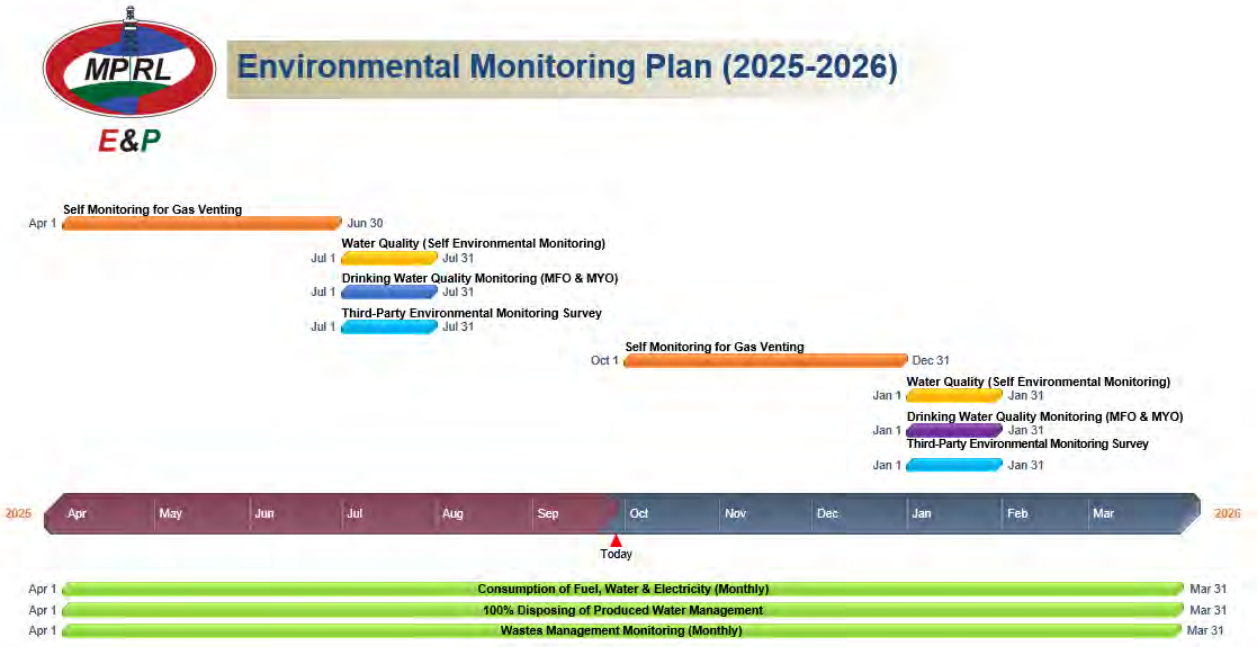

Figure 25: Timeline of Environmental Monitoring Plan (2025-26)

With the regional ECD (Magway) team, we conducted air and noise quality monitoring at Z3AQN and Z4AQN, soil quality monitoring at Z3S1, Z3S2, Z4S1, and Z4S2.

Monitoring activities are conducted as much as possible during these situations, and MPRL E&P remains highly committed to monitoring as an obligation and commitment from the ECC and EIA if the situations permit.

8.1 Ambient Air Quality Monitoring

Ambient air pollutants were sampled and analyzed in accordance with NEQEG guidelines, using the Haz-Scanner EPAS Wireless Environmental Perimeter Air Station. This portable meter records real-time data, including ambient air quality measurements and climatological data. Table 10 and table 11 provide the locations and parameters for air and noise quality monitoring.

Table 10: Ambient Air Quality Monitoring Stations

Monitoring Stations	GPS Coordinate	Sampling Date (Baseline)	Sampling Date (Monitoring)
Z1AQN	20° 19' 39.0" N 94° 49' 18.4" E	8 - 9 May 2015	-
Z2AQN	20° 15' 40.6" N 94° 50' 08.0" E	7 - 8 May 2015	-
Z3AQN	20° 13' 21.5" N 94° 51' 19.6" E	6 - 7 May 2015	22 - 23 July 2025
Z4AQN	20° 11' 41.9" N 94° 52' 32.4" E	6 - 7 May 2015	23 - 24 July 2025

Table 11: Air Quality Monitoring Parameters

Parameters	Unit	Method and Duration
Air Quality		In situ reading for 24 hours
Sulphur Dioxide (SO_2)	µg/m^3	
Carbon Monoxide (CO)	ppm	
Nitric Oxide (NO)	µg/m^3	
Nitrogen dioxides (NO_2)	µg/m^3	
Particulate Matter <2.5 µm ($PM_{2.5}$)	µg/m^3	
Particulate Matter <10 µm (PM_{10})	µg/m^3	
Meteorological Data		
Relative Humidity (R.H)	%	
Temperature	°C	
Wind Speed	kph	
Wind Direction	-	

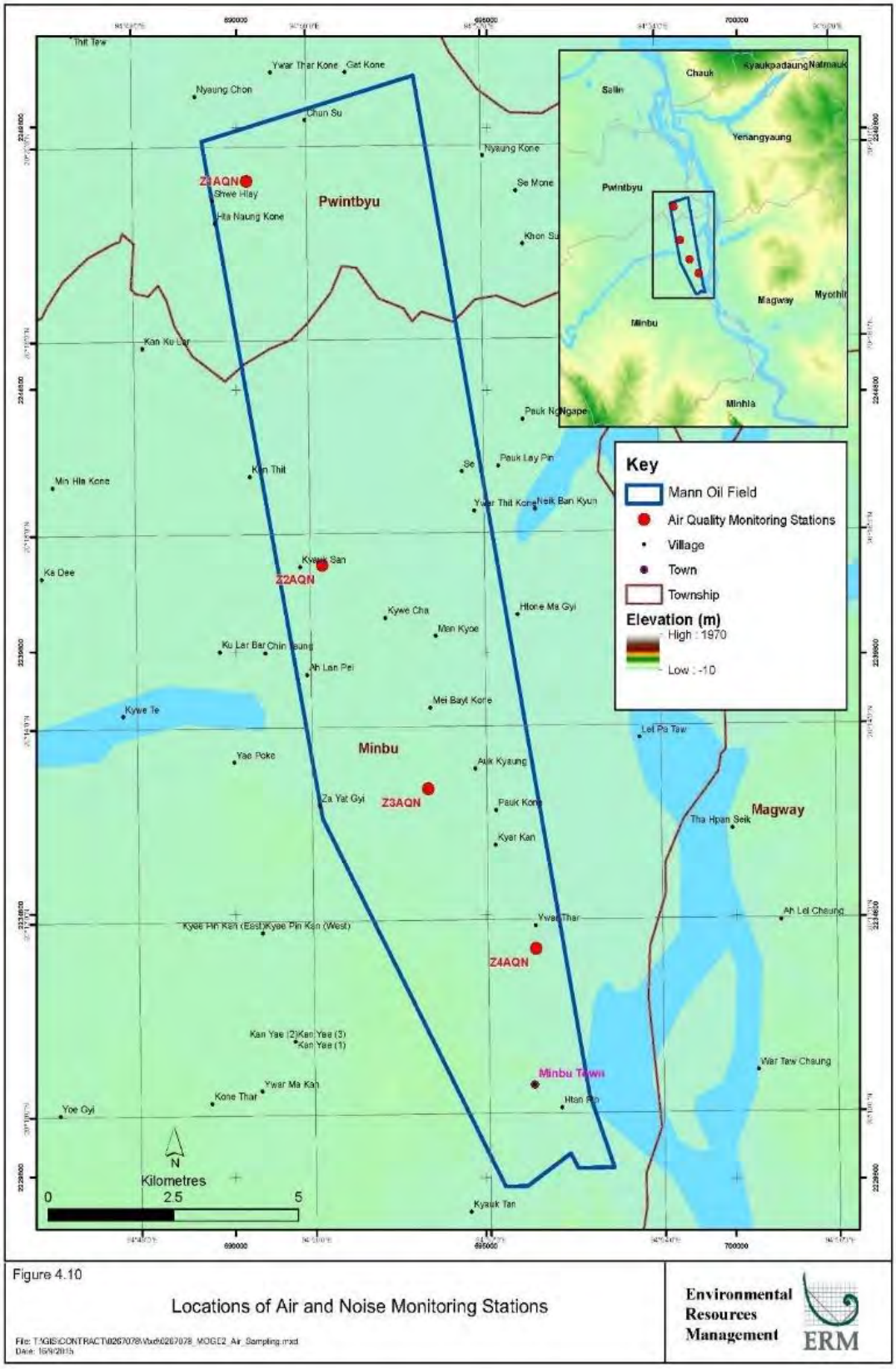

Figure 4.10

Locations of Air and Noise Monitoring Stations

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Date: 16/9/2015

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Figure 26: Locations of Air and Noise Monitoring Stations

Figure 27: Air and Noise Quality Monitoring at Z3AQN

Figure 28: Air & Noise Quality Monitoring at Z4AQN

Table 12: Summary of Air Quality Monitoring Results

Parameters	Monitoring Stations (Baseline May 2015)				Monitoring Stations (July 2025)			
	Z1AQN	Z2AQN	Z3AQN	Z4AQN	Z1AQN	Z2AQN	Z3AQN	Z4AQN
CO (24 - hr)	160.38 µg/m^3	126.02 µg/m^3	57.28 µg/m^3	148.93 µg/m^3	-	-	0.621 mg/m^3	0.0625 mg/m^3
NO_2 (1 - hr)	188.18 µg/m^3	188.18 µg/m^3	56.45 µg/m^3	169.36 µg/m^3	-	-	89.53 µg/m^3	12.95 µg/m^3
NO	380.49 µg/m^3	85.92 µg/m^3	<12.27 µg/m^3	171.84 µg/m^3	-	-	17.591 µg/m^3	35.46 µg/m^3
PM 2.5 (24 - hr)	40 µg/m^3	30 µg/m^3	20 µg/m^3	30 µg/m^3	-	-	-	-
PM_{10} (24 - hr)	50 µg/m^3	40 µg/m^3	40 µg/m^3	40 µg/m^3	-	-	7.60207 µg/m^3	9.61245 µg/m^3
SO_2 (10 min)	52.36 µg/m^3	78.54 µg/m^3	<26.18 µg/m^3	26.18 µg/m^3	-	-	1.713 µg/m^3	2.211 µg/m^3
Hydrogen Sulfide (H_2S)	-	-	-	-	-	-	0.0527 mg/Nm^3	0 mg/Nm^3
Ozone (O_3)	-	-	-	-	-	-	-	-
Temp (°C)	30.7	29	31.5	27.1	-	-	-	-
Relative Humidity (%)	61	61	56	55	-	-	61.2906	62.8754
Wind Speed (m/s)	0	0.015	0.081	0.85	-	-	-	-
Wind Direction	-	Southwest	Southeast	Southeast	-	-	-	-

Assessment Criteria: National Environmental Emission Guideline Value					
	O_3	NO_2	PM 2.5	PM_{10}	SO_2
24 - hr	-	-	25 µg/m^3	50 µg/m^3	20 µg/m^3
8 - hr	100 µg/m^3	-	-		-
1 - hr	-	200 µg/m^3	-		-
10 - min	-	-	-		500 µg/m^3

Due to security concerns, administrative and operational constraints, Mann Field operations are currently limited to daytime shifts with a limited crew. To optimize the monitoring station's accessibility and ensure reliable power supply and security, we selected Z3AQN and Z4AQN as the location for 24-hour Air and Noise Quality monitoring in collaboration with ECD (Magway) staff.

By Table 12, Summary of Air Quality Monitoring results at both the Z3AQN and Z4AQN during July 2025 indicate that all the parameters are within NEQEG standards. The monitoring results are attached and shown in Appendix A.

8.2 Noise Quality Monitoring

Table 13 presents the noise monitoring locations and land use. According to the Noise Quality Monitoring conducted by the regional ECD (Magway) at Z3AQN and Z4AQN, the LAeq value (dBA)a for both daytime and nighttime periods was found to be below the NEQEG limit. The comparison between the January 2025 Noise Quality Monitoring results and the 2015 baseline results is shown in Table 14 and Table 15.

Table 13: Noise Monitoring Stations

Monitoring Stations	GPS Coordinate	Description	Land-use
Z1AQN	20° 19' 39.0" N 94° 49' 18.4" E	Located at south western part of Pauk Su village, Pwint Phyu Township	Residential
Z2AQN	20° 15' 40.6" N 94° 50' 08.0" E	Located at south eastern part of Kyauk San village, near monestary compound	Residential
Z3AQN	20° 13' 21.5" N 94° 51' 19.6" E	In the MPRL E&P office compound, south of staff housing, Minnbu Township	Commercial
Z4AQN	20° 11' 41.9" N 94° 52' 32.4" E	Located at eastern part of Minnbu Township, close to the west bank of Ayeyarwady River	Bare ground

Table 14: Noise Quality Monitoring Results at Z3AQN

Receptor	One-hour LAeq (dBA)[a]			
	2015		July 2025	
	Daytime 07:00 - 22:00 (10:00 - 22:00 for public holidays)	Nighttime 22:00 - 07:00 (22:00 - 10:00 for public holidays)	Daytime 07:00 - 22:00 (10:00 - 22:00 for public holidays)	Nighttime 22:00 - 07:00 (22:00 - 10:00 for public holidays)
Residential, Institutional, educational	55	45	55	45
Industrial, commercial	70	70	70	70
Average Test Result	**55**	**50**	**37.3**	**33.85**

Table 15: Noise Quality Monitoring Results at Z4AQN

Receptor	One-hour LAeq (dBA)[a]			
	2015		July 2025	
	Daytime 07:00 - 22:00 (10:00 - 22:00 for public holidays)	Nighttime 22:00 - 07:00 (22:00 - 10:00 for public holidays)	Daytime 07:00 - 22:00 (10:00 - 22:00 for public holidays)	Nighttime 22:00 - 07:00 (22:00 - 10:00 for public holidays)
Residential, Institutional, educational	55	45	55	45
Industrial, commercial	70	70	70	70
Average Test Result	**49**	**56**	**48.85**	**39.3**

8.3 Soil Quality Monitoring

The baseline soil sampling locations are listed in table 16. The soil quality monitoring results provided by the regional ECD (Magway) indicated that all tested parameters are within the Dutch Standard 2000. The results are provided as shown in Table 17.

Table 16: Baseline soil sampling locations

Sampling Station	Replicate	Coordinates	Description	Baseline Sampling Date	Sampling Date
Z1S	1	20° 19' 45.30" N 94° 49' 13.99" E	at west of Pauk Su village, Pwint Phyu Township	6 - 9 May 2015	
	2	20° 19' 45.38" N 94° 49' 21.05" E	at Pauk Su village, Pwint Phyu Township	6 - 9 May 2015	
Z2S	1	20° 15' 41.70" N 94° 50' 8.41" E	in the paddy field located at the east of Kyauk San village, Minbu Township	6 - 9 May 2015	
	2	20° 15' 40.05" N 94° 50' 10.40" E	at east of Kyauk San village, Minbu Township	6 - 9 May 2015	
Z3S	1	20° 13' 22.04" N 94° 51' 19.59" E	in the compound of MPRL E&P office, Minbu Township	6 - 9 May 2015	22-Jul-25
	2	20° 13' 2.60" N 94° 51' 14.86" E	in the compound of MPRL E&P office, Minbu Township	6 - 9 May 2015	22-Jul-25
Z4S	1	20° 11' 41.31" N 94° 52' 39.20" E	near western bank of Ayeyarwady River, north of Minbu Town	6 - 9 May 2015	22-Jul-25
	2	20° 11' 45.77" N 94° 52' 38.30" E	near western bank of Ayeyarwady River, north of Minbu Town	6 - 9 May 2015	22-Jul-25

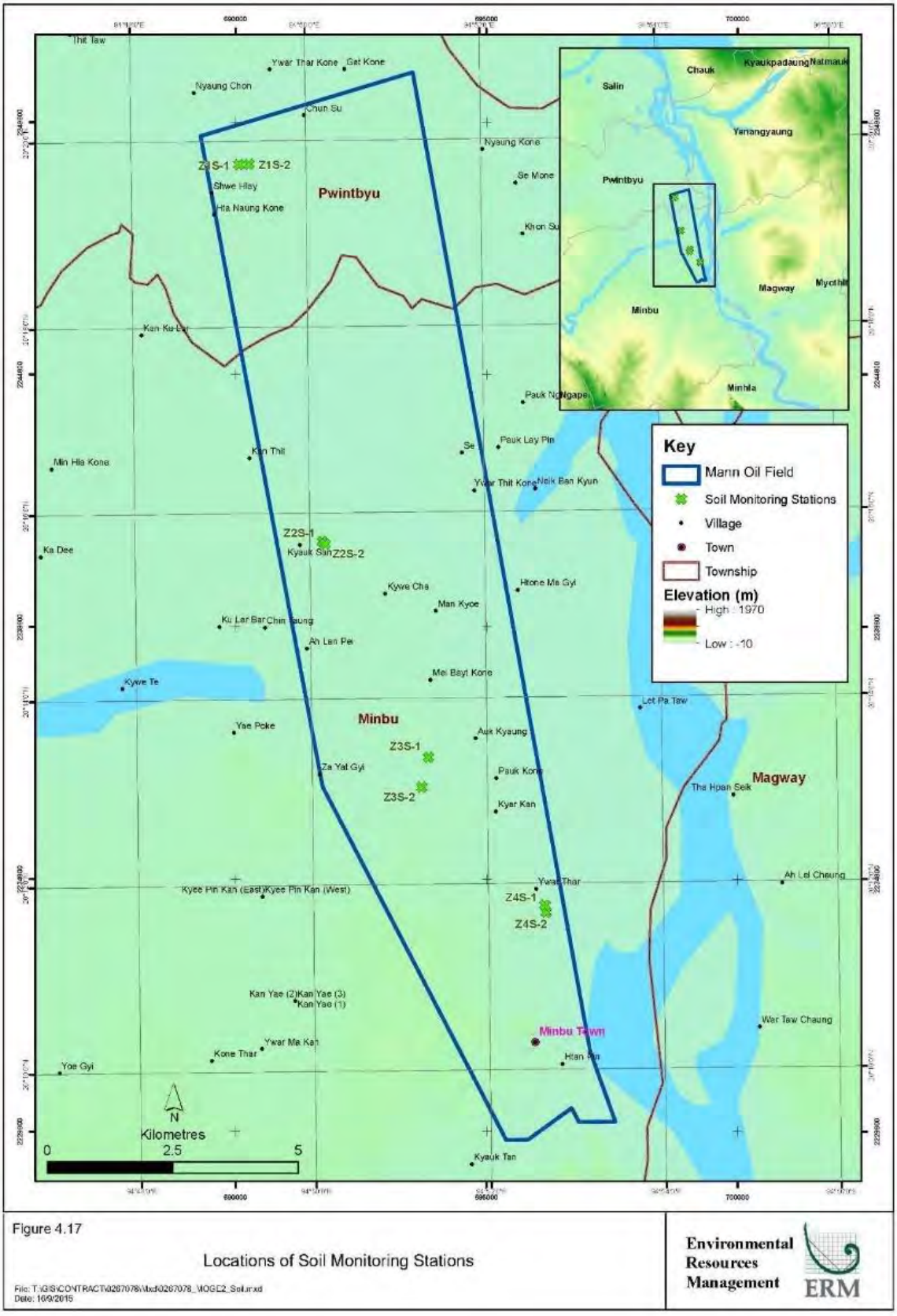

Figure 4.17

Locations of Soil Monitoring Stations

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Date: 16/9/2015

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Figure 29: Location of Soil Monitoring




Figure 30: Soil Quality Monitoring at Z3S1, Z3S2, Z4S1, Z4S2

Table 17: Soil Quality Monitoring Results

Parameter	Unit	Baseline Data Sampling Station (May 2015)								Soil Analysis Result (July 2025)								Dutch Standard 2000
		Z1S1	Z1S2	Z2S1	Z2S2	Z3S1	Z3S2	Z4S1	Z4S2	Z1S1	Z1S2	Z2S1	Z2S2	Z3S1	Z3S2	Z4S1	Z4S2	
pH	-	6.8	6.8	6.7	6.7	6.8	6.8	6.9	6.9	-	-	-	-	6.56	6.44	7.02	7.36	-
Arsenic	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	0.009	0.017	0.00	0.004	55
Lead	mg/kg	115	120	135	130	120	124	137	135	-	-	-	-	19.28	13.59	17.61	13.86	530
Cadmium	mg/kg	0.009	0.008	0.009	0.007	0.007	0.007	0.006	0.007	-	-	-	-	3.219	2.766	2.825	2.713	12
Copper	mg/kg	105	99	110	115	90	95	85	88	-	-	-	-	10.47	9.259	23.56	14.43	800
Zinc	mg/kg	75	80	72	69	65	70	75	78	-	-	-	-	53.38	26.28	45.66	98.49	720
Manganese	mg/kg	30	32	38	35	28	25	31	30	-	-	-	-	138.7	128.3	193	197.4	500
Iron	mg/kg	4850	4790	4900	4930	4870	4950	4700	4690	-	-	-	-	798.6	793.7	819.5	812.7	-
Soil Texture	-	Silty clay	Silty clay	Silty Sand	Silty Sand	Silty Sand	Silty Sand	Sandy silt with minor clay	Sandy silt with minor clay	-	-	-	-	-	-	-	-	-
Soil Color	-	Grey	Grey	Yellowish Brown	Yellowish Brown	Yellowish Brown	Yellowish Brown	Yellowish Grey	Yellowish Grey	-	-	-	-	-	-	-	-	-

8.4 Surface Water Quality Monitoring

The surface water quality monitoring within the Project Area was carried out at two locations in July 2025. Details of the sampling locations were presented in Table 18.

Table 18: Surface Water Quality Monitoring Locations

Sampling Locations	Coordinate	Description	Sampling Date (Monitoring)
Z3SW1	20° 14' 46.51" N 94° 51' 0.27" E	Mann Chaung, near Kywegya village	23 July 2025
Z3SW2	20° 14' 45.74" N 94° 51' 1.87" E	Mann Chaung, about 50 m downstream of Z3SW1	23 July 2025
Z4SW1	20° 11' 41.31" N 94° 52' 41.11" E	Near west bank of Ayeyarwady river, Minbu Township	23 July 2025
Z4SW2	20° 11' 38.80" N 94° 52' 42.50" E	Ayeyarwady river, about 90 m downstream of Z4SW1	23 July 2025

By the collected water samples measuring results, all are under NEQEG (2015) standards except for the total suspended solids parameter. The sample collected and tested period is in the rainy season and increasing the water in creek and rivers. The other possible reasons of exceeding guideline values may be from agriculture, mining and quarrying, deforestation, industrial discharges, etc.

The monitoring results of surface water in July 2025 as shown in Table 19.

Figure 4.13

Locations of Surface Water Monitoring Stations

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Figure 31: Locations of Surface Water Quality Monitoring

Figure 32: Surface Water Quality Monitoring at Z3SW1, Z3SW2, Z4SW1, and Z4SW2

Table 19: Surface Water Quality Monitoring Results

Item/ Sample Name	2015				2025 (July)				Vietnam Standard	NEQEG Standard
	Z3SW1	Z3SW2	Z4SW1	Z4SW2	Z3SW1	Z3SW2	Z4SW1	Z4SW2		
Date/ Time	6/5/15 (12:08)	6/5/15 (12:08)	6/5/15 (12:08)	6/5/15 (12:08)	23/7/25 (09:55)	23/7/25 (10:00)	23/7/25 (14:45)	23/7/25 (14:50)		
Weather	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	-	-
Transparency	High	High	Medium	Medium	-	-	-	-	-	-
Temperature Water (C)	37.66	37.62	31.55	31.18	25.0	25.0	25.0	25.0	-	-
pH	8.1	8.11	7.73	7.65	8.4	8.4	8.3	8.4	5.5-9	6-9
DO (mg/l)	11.33	11.52	7.12	7.15	6.2	6.0	5.8	5.6	≥2	-
EC (µs)	711.8	705.7	153	152.5	242	242	146	162	-	-
Turbidity (FNU)	7.1	7	25	43.7	580	320	460	490	-	-
Colour	5	10	45	55	300	220	280	300	-	-
Alkalinity	238	237	58	58	106	102	64	70	-	-
Hardness	144	150	58	50	94	98	8	60	-	-
BOD5 (mg/l)	10	10	14	16	-	-	-	-	<25	30
COD (mg/l)	32	32	32	32	96	64	96	96	<35	125
Total Nitrogen (mg/l)	3	9	19	18	15.6	8.12	9.62	14.65	15	10
Total Phosphorous (mg/l)	0.047	0.051	0.071	0.031	0.85	1.42	1.12	1.56	-	2.0
Oil and grease (mg/l)	5	7	<1	<1	6	5	6	7	0.3	10
TSS (mg/l)	7	13	124	138	446	407	560	536	80	50
E.Coli (CFU/100ml)	-	-	-	-	0	200	3200	1100		
Arsenic (mg/l)	-	-	-	-	Nil	Nil	Nil	Nil		
Barium (mg/l)	-	-	-	-	-	-	-	-		
Boron (mg/l)	-	-	-	-	0.64	1.2	1.5	1.5		
Total Chromium (mg/l)	-	-	-	-	-	-	-	-		
Fluoride (mg/l)	-	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05		
Selenium (mg/l)	-	-	-	-	-	-	-	-		
Uranium (mg/l)	-	-	-	-	-	-	-	-		

8.5 Groundwater Quality Monitoring

The groundwater quality monitoring was conducted at three existing residential wells (dug wells and drilled/ tube wells) in the Project Area. The sampling locations are presented in Table 20.

Table 20: Groundwater Quality Monitoring Locations

Sampling Locations	Coordinate	Description	Sampling Date (Monitoring)
Z3GW1	20° 15' 5.35" N 94° 50' 54.52" E	Tube well in Kywegya village, Minbu Township	23 July 2025
Z3GW2	20° 15' 6.44" N 94° 50' 53.77" E	Tube well in Kywegya village, Minbu Township	23 July 2025
Z4GW1	20° 11' 37.92" N 94° 52' 29.67" E	Well in Shwe War Gone Ward, Minbu Township	-
Z4GW2	20° 11' 29.50" N 94° 52' 27.85" E	Well in Shwe War Gone Ward, Minbu Township	23 July 2025

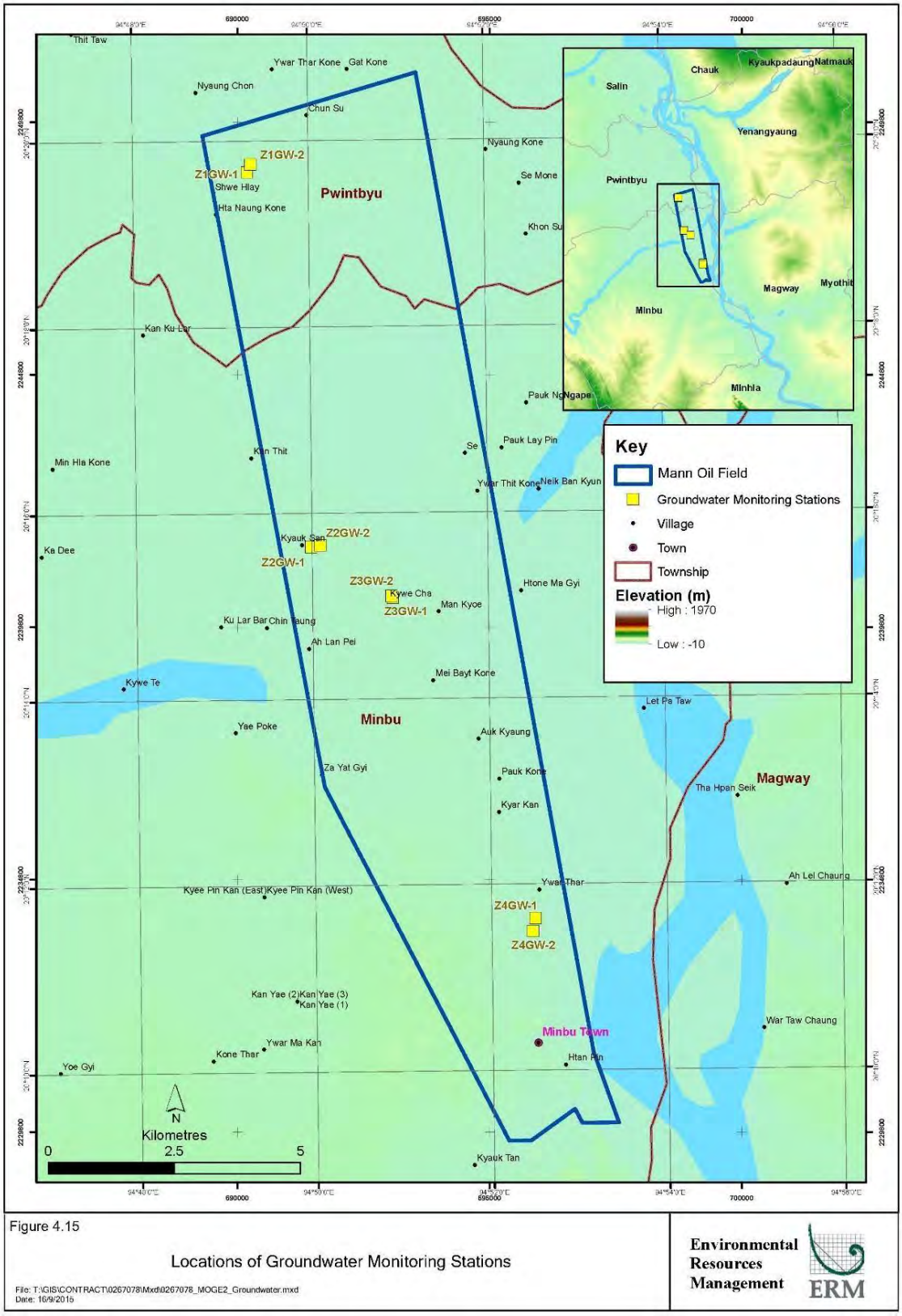

Figure 4.15

Locations of Groundwater Monitoring Stations

File: T:\GIS\CONTRACT\0267078\Mxd\0267078_MOGE2_Groundwater.mxd
Date: 10/9/2015

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Figure 33: Groundwater Quality Monitoring Locations

Figure 34: Groundwater Sampling at Z3GW1, Z3GW2, and Z4GW2

The results of groundwater quality monitoring are summarized in Table 21.

By the results of E. coli parameter measured at Z3GW1, at the time of the sample collection, there has no electricity to pump out from the tube well and we had to took samples from the water container only. Please note that this water is intended for domestic use only and is not suitable for drinking, as per public information.

Table 21: Result Summary of Groundwater Quality Monitoring

Item/ Sample Name	2015				2025 (July)				WHO Drinking Water Quality Standard (2011)
	Z3GW1	Z3GW2	Z4GW1	Z4GW2	Z3GW1	Z3GW2	Z4GW1	Z4GW2	
Date/ Time	6/5/15 (11:04)	6/5/15 (11:30)	6/5/15 (14:32)	6/5/15 (14:58)	23/7/25 (09:45)	23/7/25 (09:25)	-	23/7/25 (15:00)	-
Weather	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	-	Sunny	-
Transparency	High	High	High	High	-	-	-	-	
Temperature Water (C)	36.12	37.57	31.77	31.67	25.0	25.0	-	25.0	
pH	6.68	6.63	6.95	7.2	8.3	8.3	-	7.8	6.5-8.5
DO (mg/l)	2.9	2.29	1.44	3.41	7.2	7.2	-	6.8	
EC (µs)	1498.3	1198.7	5060.4	7740.8	1618	500	-	13512	
Turbidity (FNU)	4.9	4.6	0.5	1	13	14	-	22	
Colour	5	10	Nil	Nil	5	5	-	10	
Alkalinity	354	279	462	624	220	160	-	1100	
Hardness	246	222	539	639	120	44	-	390	
BOD_5 (mg/l)	10	14	8	10	-	-	-	-	3
COD (mg/l)	32	32	32	32	64	64	-	64	250
Total Nitrogen (mg/l)	4	73	4	63	1.61	1.42	-	1.26	
Total Phosphorous (mg/l)	0.239	0.168	0.251	0.042	0.61	0.25	-	0.28	
Oil and grease (mg/l)	<1	<1	<1	<1	3	3	-	4	10
TSS (mg/l)	<5	<5	5	<5	20	22	-	30	
E.Coli (CFU/100 ml)	-	-	-	-	200	0	-	0	0
Arsenic (mg/l)	-	-	-	-	Nil	Nil	-	Nil	0.05
Barium (mg/l)	-	-	-	-	-	-	-	-	0.7
Boron (mg/l)	-	-	-	-	0.32	0.3	-	0.51	2.4
Total Chromium (mg/l)	-	-	-	-	-	-	-	-	0.05
Fluoride (mg/l)	-	-	-	-	< 0.05	< 0.05	-	< 0.05	1.5
Selenium (mg/l)	-	-	-	-	-	-	-	-	0.04
Uranium (mg/l)	-	-	-	-	-	-	-	-	0.03

8.6 Monitoring on Sludge Management Status

The Mann Field produces around 1,800 BBL of produced water per day, which typically contains a mixture of inorganic compounds (such as dissolved salts, trace metals, suspended particles) and organic compounds (such as dispersed and dissolved hydrocarbons and organic acids). As a result of these compounds, produced water generates sludge. Improper discharge of this sludge can have potential impacts on the receiving environment, including soil, surface water, and groundwater, as well as community health, terrestrial, and aquatic ecological resources.

Dried sludge, weighing approximately 167 tons (estimated weight), is currently being stored temporarily at the Waste Management Compound and at the Sludge Management Compound (extended dried sludge storage shed).

Figure 35: Sludge Management Compound (SMC)

Currently, all the collected wet sludge is being stored properly in two concrete pits to ensure compliance with the NEQEG guideline levels for Onshore Oil and Gas Development. Any hazardous waste will be disposed of according to the commitments made in the ECC.

8.7 Monitoring on Produced Water Management Status

MPRL E&P to minimize environmental impact to Zero Discharge in produced water management. The team recording milestones on achievements of Zero Discharge on produced water management was implemented on 24 August 2017.

MPRL E&P is undertaking to inject all produced water (100%) into the shut-in wells by using 9 units of injection pumps to meet guideline levels in NEQEG for Onshore Oil and Gas Development.

Figure 36: Produced Water Injection into Shut-in Wells

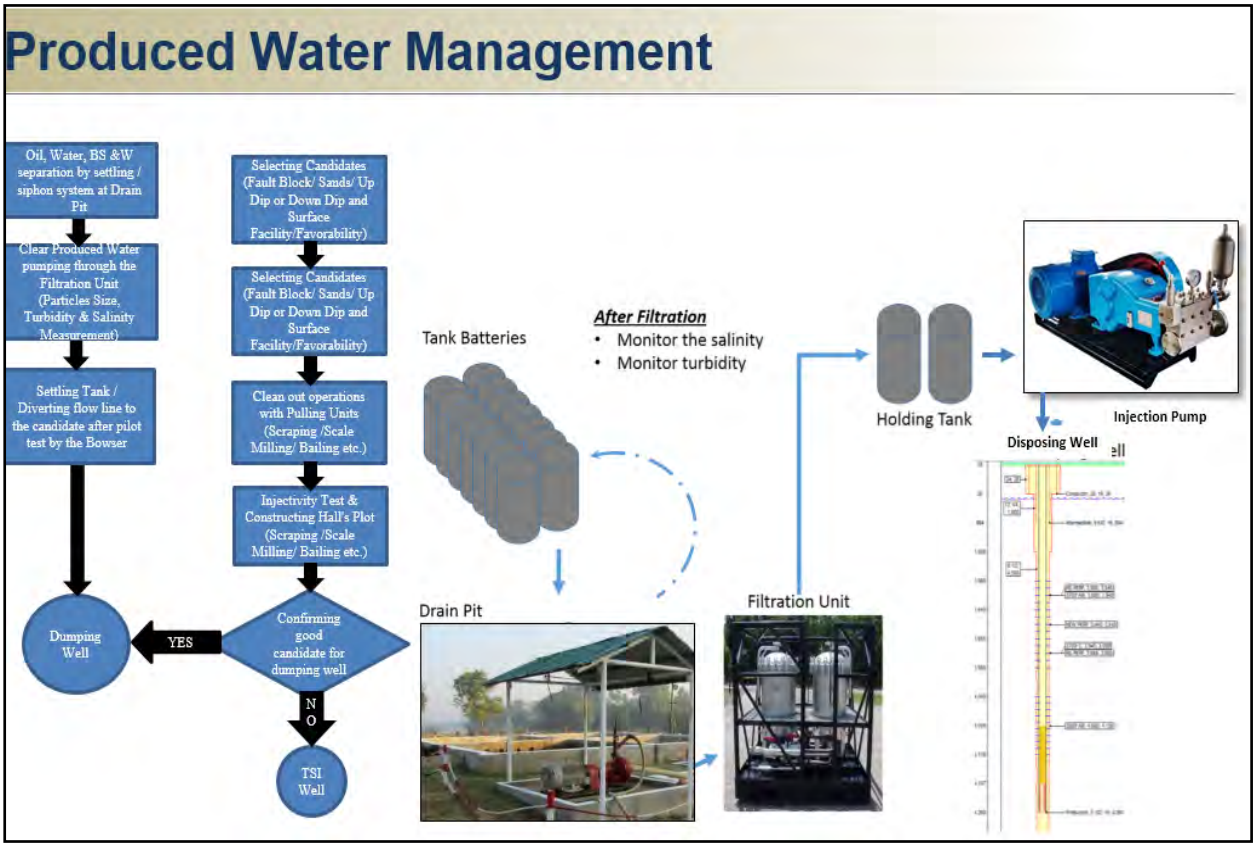

Figure 37: Produced Water Management Process

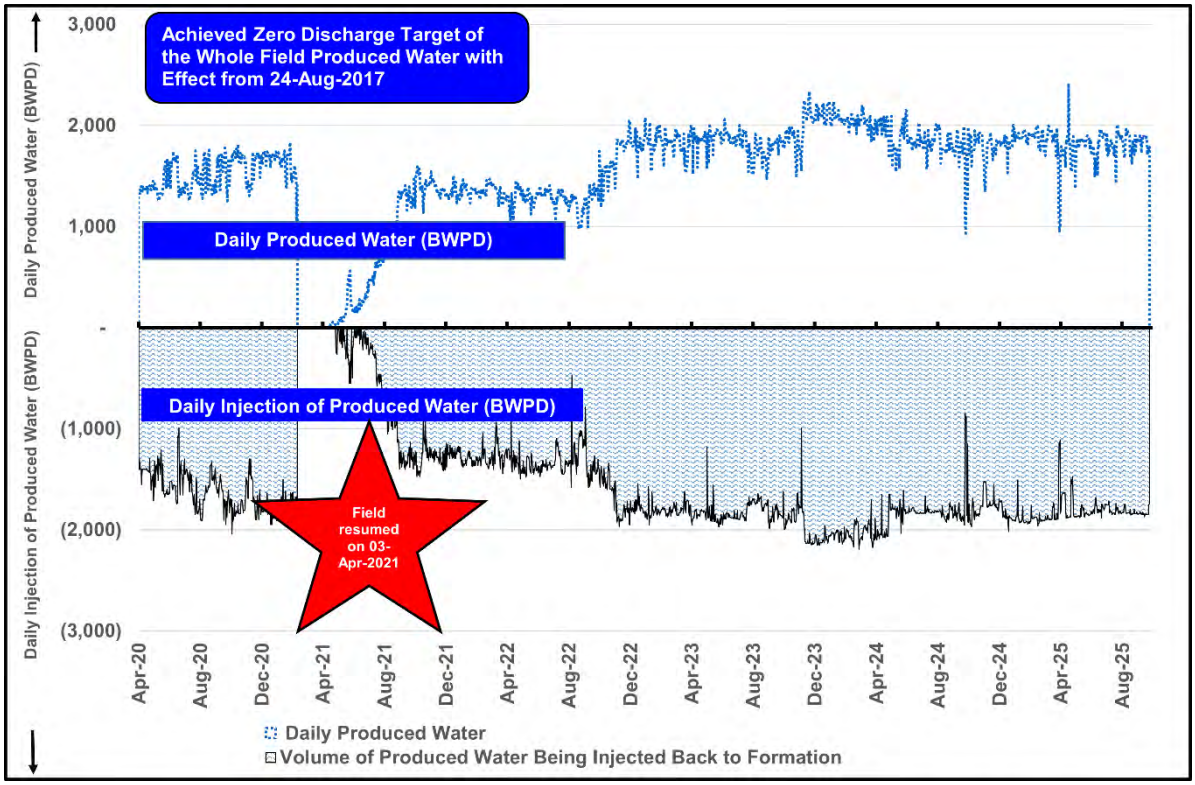

Figure 38: Produced Water Management

According to Table 8 in this report, as per Table 8.3 Environmental and Social Monitoring Program of the approved EIA report, it is committed to testing the wastewaters from the discharged points. However, all the produced water from the GOCS is being disposed of back into the formation and thus there is no discharge to the environment. Again, there is no discharge from the hydro test activities and also from shut-in wells.

Therefore, wastewater monitoring will be continued with the parameters committed in Table 8.3 of the approved EIA report on the treated discharged water of the base camp.

8.8 Monitoring on Discharge of Treated Wastewater and Runoff

MPRL E&P conducted self-monitoring activities to access the quality of discharged water from various sources, including domestic wastewater treated from Bio-filter water, hydro test water from warehouse, drinking water quality, domestic wastewater quality from Down-hole and Mechanical Workshop Zero Discharged Tank, and groundwater quality near the injection well. The monitoring was conducted according to the planned schedule.

8.8.1 Base Camp Water Discharge

Domestic-type wastewater and sewage are managed in the existing operational phase. Based on the camp water consumption monitoring results, approximately 8,000 liters of sewage and wastewater are generated per day from the base camp within the Mann Field, which can accommodate 60 – 80 workers.

Water consumption is monitored using water flow meters installed at the base camp, workshop, warehouse, and down-hole workshop. The team is also aware of the water consumption to minimize its volume.

Regular safety meetings and toolbox talks are held to raise awareness about water conservation, energy conservation, and water pollution among all crew members. Additionally, inspections are conducted to ensure that there are no leaks or wastage of water from pipelines and basins during routine camp inspections.


Figure 39: Regular Maintenance of Bio-filter by Third-party

Sanitary and domestic wastewater are managed in accordance with the mitigation plan. The following measures are in place:

- Sanitary wastewater is collected in septic holding tanks in the main camp, which are periodically serviced by a licensed firm. Currently, the wastewater is collected in a concrete pit, with no discharge outside.
- MPRL E&P has installed the wastewater treatment unit to treat sanitary wastewater in accordance with NEQEG guidelines. The field team monitors the discharge water parameters on a quarterly basis.
- Storm water run-off is directed to a pond to remove silt particles before being discharge via a storm drain.
- Surface runoff from potential sources of contamination is prevented.
- All discharge facilities and sediment control structures are regularly inspected and maintained to ensure proper and efficient operation, particularly during rainstorms. Deposited silt and grit are removed regularly.
- Runoff from areas without potential sources of contamination is minimized by reducing the area of impermeable surfaces and using vegetated swales and retention ponds to reduce the peak discharge rate.
- Oil-water separators and grease traps are constructed and maintained as appropriate at refueling facilities, workshops, parking areas, fuel storage, and containment areas.
- The location of the discharge point for treated sewage effluent into surface water is not confirmed based on the existing project design, but it will be located where there is adequate assimilative capacity of the surface waters.

8.8.2 Monitoring of Sewage Treatment System Water Quality

At Base Camp, we treated sewage discharge water using a bio-filter and collected it in a concrete tank. This water is now repurposed for watering the plants and controlling dust by spraying it on the ground.

During the month of July 2025, we collected water samples from the bio-filter treated system and sent them to ALARM and ISO Tech lab for testing and found that the results are under the NEQEG guideline.

The monitoring results are presented in Table 22: Bio-filter outlet water quality monitoring (Sewage Treatment System).

Table 22: Bio-filter Outlet Water Quality Monitoring (Sewage Treatment System)

No	Quality Parameter	Units	Results (Jan 2024)	Results (Jul 2024)	Results (Jan 2025)	Results (Jul 2025)	NEQEG (2015)
1	BOD_5	mg/l	12	32	33	35	50
2	COD	mg/l	21	56	128	96	250
3	Oil and Grease	mg/l	6	5	4	6	10
4	pH	S. U	7.5	7.6	7.4	8.3	6-9
5	Total Coliform Bacteria	MPN/100ml	>1100	80	40	60	400
6	Total Nitrogen	mg/l	3.2	3	2.6	12.5	-
7	Total Phosphorous	mg/l	1.4	<0.3	0.52	1.86	2
8	Total Suspended Solids (TSS)	mg/l	8	3	49	40	50
9	Turbidity	FNU	<5	8	60	65	-
10	Electrical Conductivity	µs	0.9	0.957	964	912	-
11	Dissolved Oxygen	mg/l	4.07	2.82	3	2.15	-

8.8.3 Hydro-test Water and Domestic Water

At the Mann Field warehouse, the team previously conducted hydro tests on tubing in a designated pressure test area. However, the field team has since minimized water usage by implementing a recycling system that uses zero discharge recycled water for these tests.

Figure 40: Warehouse Tubular Section

8.8.4 Monitoring of Discharge Water from Warehouse (Tubular Section)

Figure 41: Warehouse Zero Discharge Tank

The hydro-test water monitoring schedule was carried out during the month of July 2025. The monitoring results revealed that all parameters complied with the NEQEG guidelines except for BOD5 value and Total Suspended Solid value. BOD5 value exceeding may be many reasons such as using of organic additives in hydrotesting, residual contaminants, source of water quality, etc. Total suspended solid value may high due to rust, scale, metal oxides, or sediment from aging pipelines, introducing particulate matter into the wastewater.

The monitoring results are presented in Table – 23: Monitoring of Discharge Water from Warehouse (Tubular Section).

Table 23: Discharge Water from Warehouse (Tubular Section)

No	Quality Parameter	Units	Results (Jan 2024)	Results (Jul 2024)	Results (Jan 2025)	Results (Jul 2025)	NEQEG (2015)
1	BOD_5	mg/l	13	21	36	33	25
2	Arsenic	mg/l	0.005	0.01	0	Nil	-
3	Cadmium	mg/l	ND	ND	<0.01	ND	-
4	COD	mg/l	20	32	96	64	125
5	Chromium (Hexavalent)	mg/l	<0.02	<0.02	0.155	0.21	-
6	Copper	mg/l	ND	ND	0	Nil	-
7	TSS	mg/l	22	35	240	78	35
8	Chloride	mg/l	15	20.32	140	34	600
9	Lead	mg/l	0.15	ND	<0.1	ND	-
10	Mercury	mg/l	0.006	0.006	0.001	0.001	-
11	Nickel	mg/l	ND	0.2	0.34	0.21	-
12	pH	S. U	7.5	7.7	7.3	8.1	6-9
13	Phenols	mg/l	<0.1	<0.1	<0.1	0.41	0.5
14	Silver	mg/l	-	-	-	-	-
15	Sulfide	mg/l	0.04	0.04	0.24	0.336	1
16	Zinc	mg/l	<0.02	<0.02	0	Nil	-
17	Vanadium	mg/l	-	-	-	-	-

Down-hole Workshop: Down-hole tools servicing, cleaning, inspection, pressure testing and the cleaning process with steam are carried out in the Down-hole Workshop. The used water is disposed of at the zero discharge pits to preserve the environment.

8.8.5 Monitoring of Discharge Water from Down-Hole Workshop

In July 2025, we monitored the water samples from a zero-discharge tank of Down-hole workshop, and all of them complied with the NEQEG, except for BOD_5, Chromium (Hexavalent), mercury and total suspended solids. The types of activities conducted in the workshop can have a significant impact on water quality. Reasons for high mercury value may be by the industrial processes and contaminated equipment etc. Total suspended solids value may be high due to particles from equipment cleaning, poor filtration

Figure 42: Down-hole Workshop

or settling efficiency, dirt or dust from workshop operations, corrosion and wear of metal parts, etc.

The primary source of high BOD_5 values in these workshops may be typically from oil and grease contamination, as well as the presence of organic compounds from cleaning agents, solvents, and lubricants used in maintenance and repair activities. The exceeding parameter of Chromium (Hexavalent) may be due to its use in corrosion inhibitors, plating processes, and certain types of drilling fluids.

The water used in the daily operation of the down-hole workshop was collected in a concrete tank via a drain line and reused for recycling, thus avoiding discharge to the environment.

The monitoring results are described in the following Table 24: Discharge Water from Equipment Maintenance Workshop (Down-hole Workshop).

Table 24: Discharge Water from Down-hole Workshop

No	Quality Parameter	Units	Results (Jan 2024)	Results (Jul 2024)	Results (Jan 2025)	Results (Jul 2025)	NEQEG (2015)
1	BOD_5	mg/l	14	37	24	71	50
2	Ammonia	mg/l	0.2	3	1.86	3.16	10
3	Arsenic	mg/l	0.01	0.01	0	Nil	0.1
4	Cadmium	mg/l	ND	ND	ND	0.03	0.1
5	COD	mg/l	25	65	64	96	250
6	Chlorine (Total Residual)	mg/l	<0.02	<0.02	Nil	Nil	0.2
7	Chromium (Hexavalent)	mg/l	<0.02	<0.02	0.02	0.279	0.1
8	Chromium (Total)	mg/l	-	-	-	-	0.5
9	Copper	mg/l	ND	ND	Nil	Nil	0.5
10	Cyanide (Free)	mg/l	<0.01	<0.01	0.054	0.022	0.1
11	Cyanide (Total)	mg/l	-	-	-	0.031	1
12	Fluoride	mg/l	0	0	0.8	0.8	20
13	Heavy Metals (Total)	mg/l	-	-	-	-	10
14	Iron	mg/l	0.35	0.36	0.35	0.239	3.5
15	Lead	mg/l	0.2	ND	ND	ND	0.1
16	Mercury	mg/l	0.006	0.002	0.04	0.02	0.01
17	Nickel	mg/l	ND	ND	ND	0.24	0.5

No	Quality Parameter	Units	Results (Jan 2024)	Results (Jul 2024)	Results (Jan 2025)	Results (Jul 2025)	NEQEG (2015)
18	Oil and Grease	mg/l	7	8	8	8	10
19	pH	S. U	7.5	7.6	7.4	8.3	6-9
20	Phenols	mg/l	0.1	<0.1	<0.1	0.28	0.5
21	Selenium	mg/l	-	-	-	-	0.1
22	Silver	mg/l	-	-	-	-	0.5
23	Sulfide	mg/l	<0.04	<0.04	0.313	0.343	1
24	Temperature increase	mg/l	25	26.2	25	25	<3
25	Total coliform bacteria	MPN/100 ml	>1100	40	16	40	400
26	Total Phosphorous	mg/l	1.1	2.6	1.92	1.24	2
27	Total Suspended Solids	mg/l	35	156	147	80	50
28	Zinc	mg/l	<0.02	<0.02	Nil	Nil	2
29	Vanadium	mg/l	-	-	-	-	-

Mechanical Workshop: pulling units, workover rigs, trucks, bulldozers, backhoes, tractors and pumps are serviced in the workshop, and large amounts of water are used in car washes and general cleaning. Water reclamation systems are employed in the workshop.

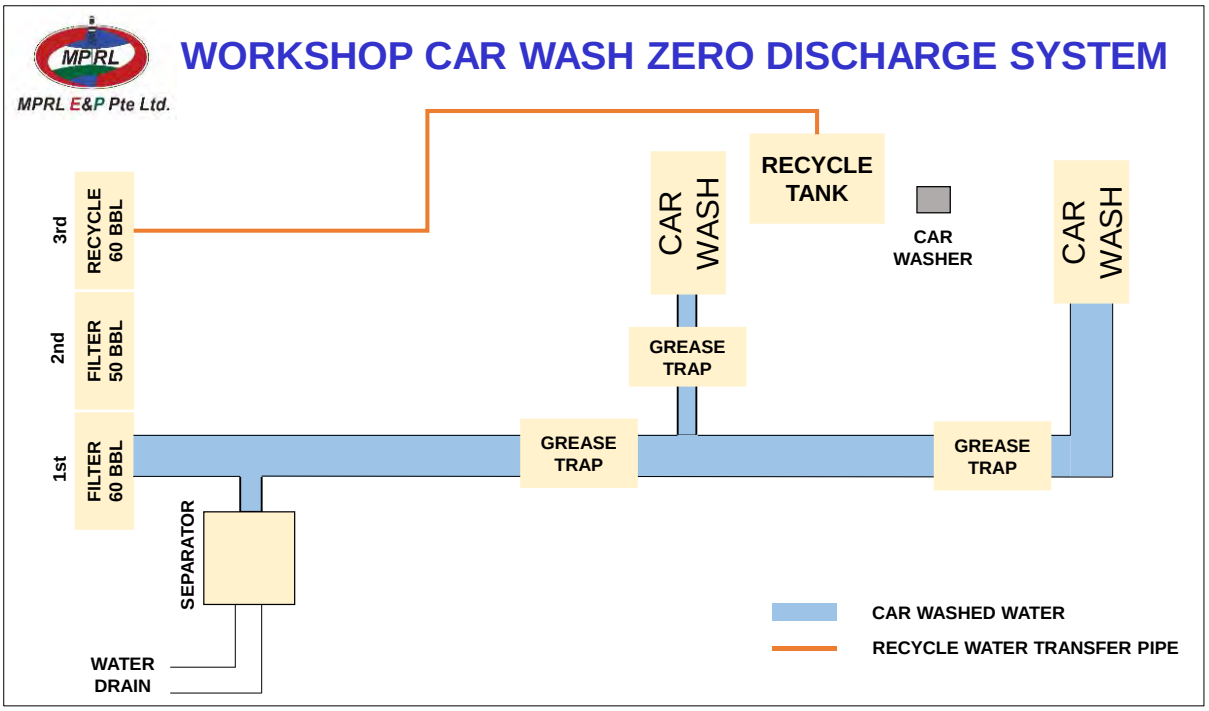

Figure 43: Recycle Water Usage System with Zero Discharge at Mechanical Workshop

8.8.6 Monitoring of Discharge Water from Mechanical Workshop

Vehicles and machine parts undergo maintenance and repair work at the mechanical workshop, and the water used in the workshop's daily operation is collected in a concrete tank and reused.

Monitoring for the domestic water quality from the equipment maintenance workshop (Mechanical Workshop) of the Zero Discharge Tank was conducted in July 2025, and as per the results, chromium (hexavalent), mercury and total suspended solids only exceeded the guideline values a little.

Reasons for high mercury value may be by the industrial processes and contaminated equipment etc. Total suspended solids value may be high due to particles from equipment cleaning, poor filtration or settling efficiency, dirt or dust from workshop operations, corrosion and wear of metal parts, etc. The exceeding parameter of Chromium (Hexavalent) may be due to its use in corrosion inhibitors, plating processes, and certain types of drilling fluids.

The tested results of the monitoring are presented in Table 25: Discharge water from Equipment Maintenance Workshop (Mechanical Workshop).

Table 25: Discharge Water from Mechanical Workshop

No	Quality Parameter	Units	Results (Jan 2024)	Results (Jul 2024)	Results (Jan 2025)	Results (Jul 2025)	NEQEG (2015)
1	BOD_5	mg/l	26	28	32	24	50
2	Ammonia	mg/l	0.2	0.3	0.54	2.4	10
3	Arsenic	mg/l	0.005	0.005	Nil	Nil	0.1
4	Cadmium	mg/l	0.01	ND	ND	0.04	0.1
5	COD	mg/l	34	53	64	64	250
6	Chlorine (Total Residual)	mg/l	<0.02	<0.02	Nil	Nil	0.2
7	Chromium (Hexavalent)	mg/l	<0.02	<0.02	0.08	0.31	0.1
8	Chromium (Total)	mg/l	-	-	-	-	0.5
9	Copper	mg/l	ND	ND	Nil	Nil	0.5
10	Cyanide (Free)	mg/l	<0.01	<0.01	0.039	0.025	0.1
11	Cyanide (Total)	mg/l	-	-	-	0.034	1
12	Fluoride	mg/l	0	0	0.4	3.3	20
13	Heavy Metals (Total)	mg/l	-	-	-	-	10
14	Iron	mg/l	0.32	0.32	0.32	0.258	3.5
15	Lead	mg/l	0.12	0.15	ND	ND	0.1
16	Mercury	mg/l	0.006	0.001	0.05	0.03	0.01
17	Nickel	mg/l	ND	ND	0.31	0.31	0.5
18	Oil and Grease	mg/l	6	6	6	7	10
19	pH	S. U	7.7	8.3	7.6	8.4	6-9
20	Phenols	mg/l	<0.1	<0.1	<0.1	0.31	0.5
21	Selenium	mg/l	-	-	-	-	0.1
22	Silver	mg/l	-	-	-	-	0.5
23	Sulfide	mg/l	<0.04	<0.04	0.303	0.341	1
24	Temperature increase	mg/l	24.9	25	25	25	<3
25	Total coliform bacteria	MPN/100 ml	460	30	12	10	400
26	Total Phosphorous	mg/l	1.6	0.2	1.82	1.31	2
27	Total Suspended Solids	mg/l	<0.02	28	60	58	50

No	Quality Parameter	Units	Results (Jan 2024)	Results (Jul 2024)	Results (Jan 2025)	Results (Jul 2025)	NEQEG (2015)
28	Zinc	mg/l	<0.02	<0.02	Nil	Nil	2
29	Vanadium	mg/l	-	-	-	-	-

8.9 Use of Chemicals for EOR

During the EOR operation, chemicals will be injected into the wells to alter the property of oil for enhanced recovery in the EIA report. The chemicals that may be used for the Project included alkaline and polymers. The injection of chemicals into the well may cause groundwater contamination and indirectly affecting community health.

In Mann Field, MPRL E&P applied the GreenZyme® to inject to the formation that does not expose nor discharge to the environment. There is no environmental issue since the injection project had been conducted according to the standard operating procedure by protecting not to spill to the environment.

GreenZyme® is a biological liquid enzyme which is a kind of environmentally friendly fluid. It is a protein-based non-living catalyst, which facilitates the completion of biological reactions, to enhance crude oil recovery from most oil wells, both onshore and offshore. EOR GreenZyme® is produced by a proprietary process, which involves impregnating a high protein nutrient soup, with the DNA of selectively cultured microbes. The final product contains enzymes associated with the oil-eating microbe's DNA. Nearly all-living microbes are made inert at the end of the manufacturing process.

8.10 Monitoring of Camp Water Quality (Drinking Water Quality)

Figure 44: Collection of Drinking Water Sample from RO Drinking Water System

Access to safe drinking water is crucial for everyone's wellbeing, which is why a Reverse Osmosis (RO) drinking water system has been installed in the base camp. This system ensures that there is sufficient purified water available for staff members to use for drinking water and food preparation. To maintain the quality of water, the team conducts biannually water quality monitoring, and the site doctor and HSE team perform hygiene inspections and audits according to the planned schedule. Regular service and maintenance are also scheduled and implemented to ensure that the RO system continues to function properly.

Monitoring Results of Drinking Water Quality

In July 2025, the drinking water quality of Mann Field Base Camp was tested at ALARM and ISO Tech labs. The results indicate that all parameters were below the Drinking Water Quality Standard (DWQS) 2019 and confirm that the water is safe to drink. However, taste and odor parameters were not available in the lab.

The results of the purified drinking water quality from RO system are described in Table 26: Drinking Water Quality Monitoring from MPRL E&P Base Camp (RO Outlet).

Table 26: Drinking Water Quality Monitoring from MPRL E&P Base Camp (RO Outlet)

No	Quality Parameter	Units	Results (Jan 2024)	Results (Jul 2024)	Results (Jan 2025)	Results (Jul 2025)	DWQS (2019)
1	pH	S. U	8.2	7	7.1	6.6	6.5-8.5
2	Turbidity	NTU	<5	<5	1	5	5
3	Colour	TCU	1	0	Nil	5	15
4	Hardness	mg/l as $CaCO_3$	41.77	12.8	2	4	500
5	Arsenic	mg/l	0.005	0	Nil	Nil	0.05
6	Chloride	mg/l	5	32	12	2	250
7	Lead	mg/l	ND	ND	ND	ND	0.01
8	Total Dissolved Solids (TDS)	mg/l	10	3	16	4	1000
9	Iron	mg/l	0.05	0.12	0.07	0.09	1
10	Sulphate	mg/l	<2	19.4	Nil	Nil	250
11	Manganese	mg/l	0.3	<0.2	0.02	<0.2	0.4
12	Nitrate	mg/l	<0.5	0.25	0.4	Nil	50
13	Total Coliform Count	MPN/100ml	0	0	0	0	0
14	Total Fecal Coliform Count	MPN/100ml	0	0	0	0	0
15	Odor	Acceptable	NA	NA	-	-	-

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8.11 Monitoring of Ground Water Quality Near the Injection Well

MPRL E&P did not perform the chemical flooding or injection processes on the wells, but instead initiated the enhanced oil recovery project by injecting produced water into the shut-in wells using injection pumps to maintain reservoir pressure.

As part of the Environmental monitoring plan, groundwater near the injection well was monitored bi-annually to assess any contamination or impact on the groundwater. There were two tube wells near shut-in well 132, named Ko Win Maung and Ma Nyein wells. The monitoring was conducted according to our self-monitoring plan, and the samples were tested at ALARM lab in July 2025. However, taste and odor parameters could not be tested due to the unavailability of labs. The monitoring results are presented in Tables 27 and 28.

Table 27: Groundwater Quality Monitoring near Injection Well 132 (Ko Win Maung)

No	Quality Parameter	Units	Results (Jan 2024)	Results (Jul 2024)	Results (Jan 2025)	Results (Jul 2025)	DWQS (2019)
1	pH	S. U	7.3	NA	7.3	7.8	6.5-8.5
2	Turbidity	FAU/NTU	<5	NA	9	9	5
3	Colour	HU	1	NA	5	5	15
4	Hardness	mg/l as CaCO3	42.53	NA	204	164	500
5	TDS	mg/l	910	NA	683	888	≤1000
6	Chloride	mg/l	43	NA	35	55	250
7	Total Coliforms	MPN/100ml	9	NA	5	3	0
8	Total Faecal Coliforms	MPN/100ml	0	NA	0	0	0
9	Arsenic	mg/l	0.005	NA	Nil	Nil	0.05
10	Iron	mg/l	0.31	NA	0.48	0.33	1
11	Lead	mg/l	ND	NA	ND	ND	0.01
12	Manganese	mg/l	1.8	NA	0.35	0.46	0.4
13	Sulfate	mg/l	449	NA	102	111	250
14	Nitrate	mg/l	2.1	NA	0.3	Nil	50
15	Odor	Acceptable	NA	NA	-	-	-

Table 28: Groundwater Quality Monitoring near Injection Well 132 (Ma Nyein)

No	Quality Parameter	Units	Results (Jan 2024)	Results (Jul 2024)	Results (Jan 2025)	Results (Jul 2025)	DWQS (2019)
1	pH	S. U	8	7.7	7.4	8.2	6.5-8.5
2	Turbidity	FAU/NTU	<5	<5	12	12	5
3	Colour	HU	2	0	5	5	15
4	Hardness	mg/l as $CaCO_3$	40.72	0.051	100	92	500
5	TDS	mg/l	560	582	562	519	≤1000
6	Chloride	mg/l	58	28.3	50	25	250
7	Total Coliforms	MPN/100ml	0	3	6	3	0
8	Total Faecal Coliforms	MPN/100ml	0	0	0	0	0
9	Arsenic	mg/l	0.005	0.005	Nil	Nil	0.05
10	Iron	mg/l	0.21	0.31	0.52	0.37	1
11	Lead	mg/l	0.1	ND	ND	ND	0.01

No	Quality Parameter	Units	Results (Jan 2024)	Results (Jul 2024)	Results (Jan 2025)	Results (Jul 2025)	DWQS (2019)
12	Manganese	mg/l	2.3	<0.2	0.32	0.51	0.4
13	Sulfate	mg/l	399	84.1	84	82	250
14	Nitrate	mg/l	2.4	0.31	0.6	Nil	50
15	Odor	Acceptable	NA	NA	-	-	-

All the results at Ko Win Maung tubewell shown under the Drinking Water Quality Standard (2019), except for turbidity, total coliforms, and manganese. The exceeding reasons of turbidity may be the natural factors such as soil erosion and geological conditions, anthropogenic activities, etc. The presence of total coliforms in tube well water analysis can be a sign of contamination, which could stem from various factors. Coliform bacteria are generally not harmful themselves, but their presence indicates that the water may be contaminated by pathogens, making it unsafe for consumption. Those may be contamination from surface water due to proximity to contamination sources, animal contamination, natural occurrence in the environment, etc. High manganese levels in groundwater are often a naturally occurring phenomenon due to the geological composition of the aquifer. It can also be a result of corrosion of steel pipes and casings in the tube-well itself.

At the Ma Nyein Well, all the results were shown to be under the Drinking Water Quality Standard (2019), except for turbidity, total coliforms, and manganese. The exceeding reasons of turbidity may be the natural factors such as soil erosion and geological conditions, anthropogenic activities, etc. The presence of total coliforms in tube well water analysis can be a sign of contamination, which could stem from various factors. Coliform bacteria are generally not harmful themselves, but their presence indicates that the water may be contaminated by pathogens, making it unsafe for consumption. Those may be contamination from surface water due to proximity to contamination sources, animal contamination, natural occurrence in the environment, etc. High manganese levels in groundwater are often a naturally occurring phenomenon due to the geological composition of the aquifer. It can also be a result of corrosion of steel pipes and casings in the tube-well itself.

Figure 45: Tube Well of Ko Win Maung

Figure 46: Tube Well of Ma Nyein

8.12 Monitoring on Gas Venting

In accordance with the gas venting monitoring program, MPRL E&P's technical team utilizes an Echo Meter to monitor and measure gas volume. If the recorded gas volume substantially exceeds the previous measurement, an orifice meter is employed to validate the volume within a 24-hour timeframe. Once the gas volume is confirmed to be sufficient, the team connects to the gas line and channels the collected gas to the existing facility supplying gas lines to the LPG plant. Continuous monitoring indicates a reduction in well counts and vent gas volume. The team has effectively minimized the venting gas volume, achieving successful mitigation.

Location of the Gas Venting Wells

As per the planned monitoring program, the team randomly selected the six wells and measured by using an orifice meter on the wells as follows;

Table 29: Selected Gas Venting Wells Locations

Well No	Location	Gas Volume	Date
M 328	N 20°13'58.32" E 94°50'57.67"	0 - MMCFD	04 Apr 2025
M 362	N 20°11'11.75" E 94°51'52.52"	0 - MMCFD	17 May 2025
M 628	N 20°12'44.52" E 94°51'20.29"	0 - MMCFD	13 Jun 2025
M 205	N 20°13'9.99" E 94°51'20.15"	0 - MMCFD	08 Jul 2025
M 605	N 20°12'58.49" E 94°51'19.22"	0 - MMCFD	15 Aug 2025
M 355	N 20°13'15.09" E 94°51'25.16"	0 - MMCFD	23 Sep 2025

Gas Volume Measurement (Orifice Meter) Well-328

Date: 04 Apr 2025, Gas Volume – 0 MMCFD

Gas Volume Measurement (Orifice Meter) Well-362

Date: 17 May 2025, Gas Volume – 0 MMCFD

Gas Volume Measurement (Orifice Meter) Well-628

Date: 13 Jun 2025, Gas Volume – 0 MMCFD

Gas Volume Measurement (Orifice Meter) Well-205

Date: 08 Jul 2025, Gas Volume – 0 MMCFD

Gas Volume Measurement (Orifice Meter) Well-605

Date: 15 Aug 2025, Gas Volume – 0 MMCFD

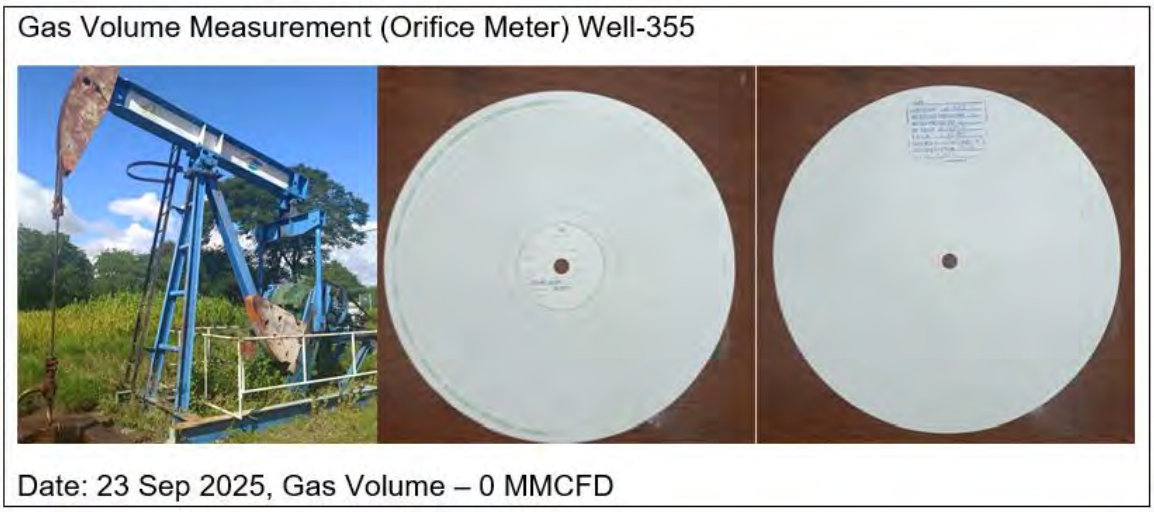


Figure 47: Gas-Vented Wells and Vented Gas Volume Measurement Record

8.12.1 Monitoring of Hydrogen Sulphide (H_2S)

In accordance with our Environmental and Social Monitoring program and self-monitoring schedule, our HSE Officers monitored Hydrogen Sulphide (H_2S) levels on a monthly basis at randomly selected potential gas venting wells. From among these wells, we have provided detailed results for six (6) wells in Table 30.

Table 30: Monitoring Results of the Hydrogen Sulphide (H_2S)

Sr. No:	Location	Date	Measured Time Duration	H_2S (PPM)	CO (PPM)	O_2 %	LEL %
1	M-64	25 September 2025	30 sec	0	0	20.7	0
2	M-280	25 September 2025	30 sec	0	0	20.7	0
3	M-246	25 September 2025	30 sec	0	0	20.7	0
4	M-218	25 September 2025	30 sec	0	0	20.7	0
5	M-356	25 September 2025	30 sec	0	0	20.7	0
6	M-125	25 September 2025	30 sec	0	0	20.7	0

H_2S levels are monitored using an in-house portable gas detector (VENTIS MX4 Gas Detector), which has been calibrated periodically as per plan. This equipment can monitor four (4) parameters. As a result of monitoring, no H_2S was detected, and the results for each well are listed in the above Table 30.

M-64 (near Aye Mya Village)

M-218 (Beside the Main G-20 Field Road)

M-246 (Beside the Main G-20 Field Road)

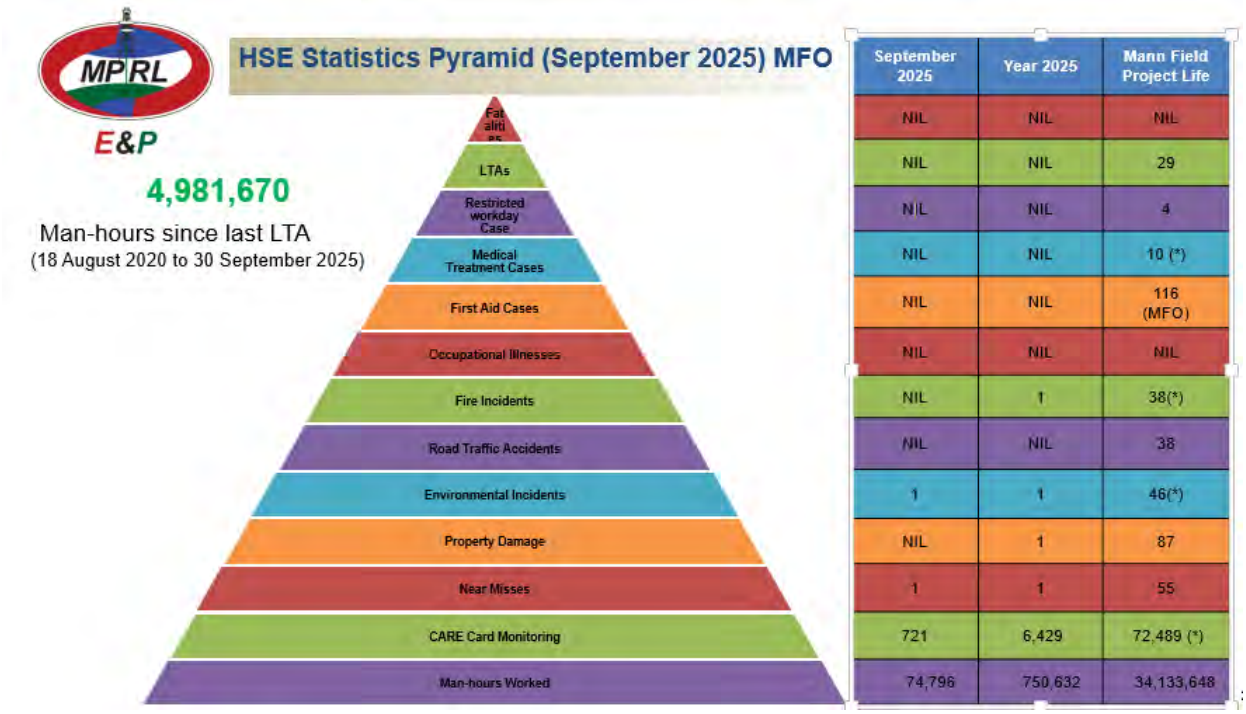
Figure 48: H_2S Monitoring Activities

9. Occupational Health and Safety Performance

Occupational Health and Safety System Framework

MPRL E&P is committed to staff safety and minimizing environmental impact in all its operations. The company ensures that its health and safety management aligns with international standards such as HSG 65 and ISO 45001:2018, as well as relevant local regulations, international standards, and industry best practices, including API requirements. Ongoing monitoring and enhancement of these efforts help maintain performance and compliance standards.

9.1 HSE Statistics Pyramid

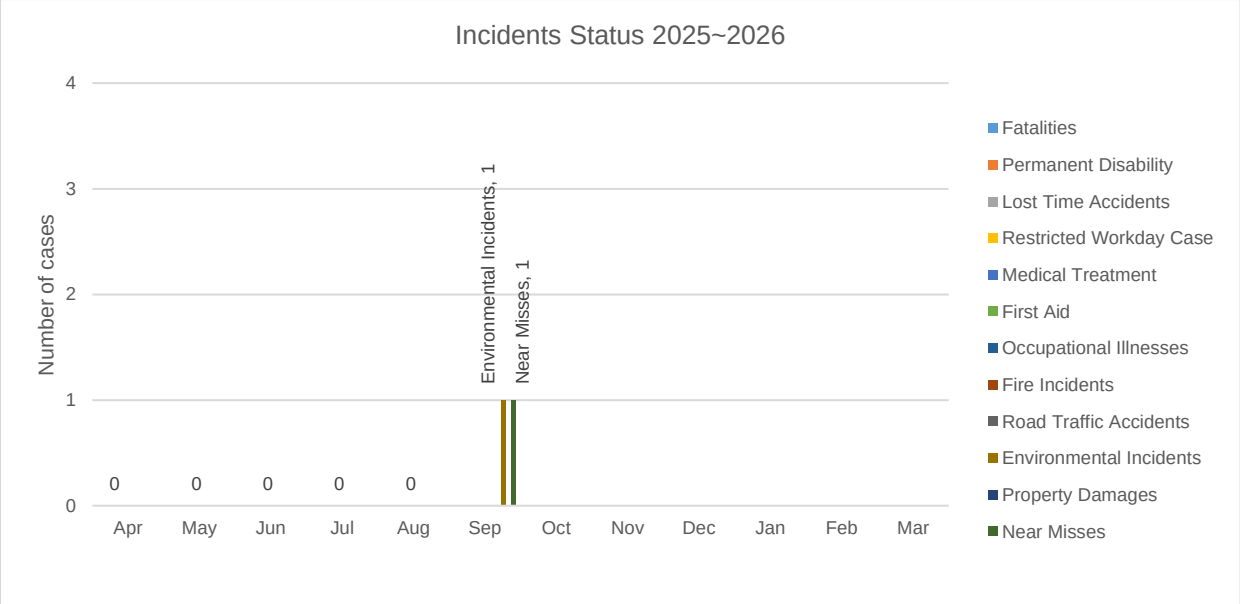


September 2025	Year 2025	Mann Field Project Life
NIL	NIL	NIL
NIL	NIL	29
NIL	NIL	4
NIL	NIL	10 (*)
NIL	NIL	116 (MFO)
NIL	NIL	NIL
NIL	1	38(*)
NIL	NIL	38
1	1	46(*)
NIL	1	87
1	1	55
721	6,429	72,489 (*)
74,796	750,632	34,133,648

Figure 49: HSE Statistics Pyramid Up to 30 September 2025 Status

9.2 Incidents Status

In the reporting time frame (April 2025 to September 2025), Mann Field operations recorded a total of two incidents: an Environmental incident and a near miss case. The total recordable cases remain within the KPI target of not exceeding four for 2025-2026.



9.3 HSE Audits & Inspections

Regular surprise alcohol tests are conducted at Mann Field to reinforce the commitment to a dry workplace and ensure employees are not under the influence while on duty. These tests aim to protect employee well-being, prevent incidents, and support safe and efficient oil field operations.

Regular Permit to Work (PTW) audits are conducted utilizing a detailed checklist to ensure that all hazardous work is managed safely adheres to established procedures and that safety measures are thoroughly documented and implemented.

Weekly Cross-Inspections and Bi-Weekly Hazards Hunt Inspections are conducted periodically, covering Pulling Unit operations, GOCS stations, workshops, and warehouse areas. These inspections utilize checklists and are part of our proactive approach to ensure adherence to HSE standards and practices across these critical operational domains. This highlights our dedication to a safe and environmentally responsible workplace.

Bi-annual earthing resistance tests were conducted to ensure compliance with electrical safety standards and maintain system integrity across these key facilities.

As part of the organization's ongoing Slip, Trip & Fall and Working at Height Hazards Prevention program, an inspection of ladders and safety harnesses was carried out. The objective was to ensure the reliability of equipment and compliance with safety standards to minimize risks associated with working at height.

In line with the preventive maintenance (PM) schedule for electrical equipment, the MPRL E&P team, in collaboration with MOGE Electricians, carried out inspections of starter boxes, lighting equipment, and fixtures at designated facilities. The inspection

aimed to ensure equipment reliability, prevent electrical hazards, and maintain compliance with safety standards.

To maintain safe storage practices and ensure compliance with company HSE standards, an inspection of chemical storage was conducted at the KCL Warehouse and Container. The inspection aimed to identify potential risks, verify the condition of storage materials, and ensure the overall safety and cleanliness of the storage area.

As part of the company's environmental protection and emergency preparedness measures, spill kit inspections were conducted to ensure readiness in the event of accidental spills. The activity aimed to verify that all spill kits are properly stocked, functional, and positioned for immediate use.

To prevent incidents and ensure the reliability of lifting operations, a thorough inspection of all lifting gear, hoisting, and handling equipment was carried out.

Conduct inspection and maintenance of the safety barriers to ensure their structural integrity, reliability, and compliance with safety standards.

Figure 50: Earthing Resistance Test

Figure 51: Ladder & Safety Harness Inspection

Figure 52: Electrical Equipment Inspections

Figure 53: Inspection for Safe Chemical Storage

Figure 54: Spill Kits Inspection

Figure 55: Lifting Gear, Hoisting & Handling Equipment NDT Inspection and Color Coding

Figure 56: Inspection and Maintenance of the Safety Barriers

9.4 HSE Training

To ensure the safety of personnel, environmental protection, and the financial sustainability of the accelerated operations, HSE training has become a strategic necessity. As operational activity intensifies, the frequency and focus of HSE training have increased proportionally.

Numerous internal HSE knowledge-sharing sessions are conducted to foster a strong safety culture, improve operational efficiency, and ensure the HSE team is prepared to address the challenges of a dynamic and safety-critical environment.

During the fiscal year 2025-2026 (April 25 ~ September 25), a total of 2,006 HSE training hours were achieved. Targeted training sessions were conducted to ensure workers' competencies align with operational needs. These included Year 2025 – 2026 (April 25~ September 25) HSE training as per follow:

Year 2025 – 2026 (April 2025 ~ September 2025)

- Post-Earthquake Insights- Strengthening our Emergency Preparedness
- Electrical Safety Awareness Training
- World Hypertension Day Awareness
- Latest COVID-19 Omicron Sub-Variant XEC
- World Environmental Day
- Manual Handling Training
- Biodiversity Policy Awareness
- Oral Hygiene for cleaners
- Basic First Aid Training
- Occupational Health Hazards Awareness
- Dengue Hemorrhage Fever Awareness
- Risk Assessment & Risk Management Awareness
- New COVID-19 Variant (XFG) Awareness
- First-aid refresher training for GoC First-aiders

Figure 57: Post Earthquake Insight Strengthening Our Emergency Preparedness

Figure 58: Mental Health at Work

Figure 59: Electrical Safety Awareness Training

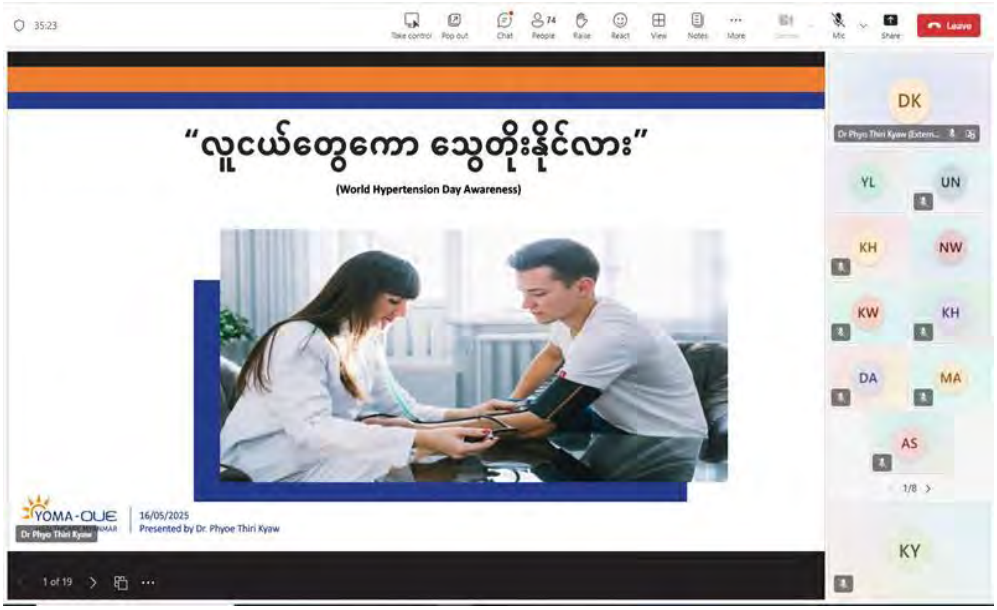


Figure 60: World Hypertension Day Awareness

Figure 61: Latest COVID-19 Omicron Variant XEC Awareness

Figure 62: Manual Handling Training

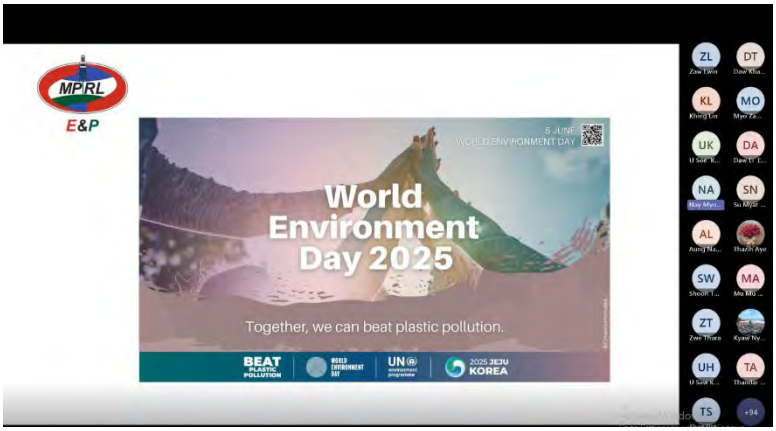


Figure 63: World Environment Day 2025 Awareness

Figure 64: Oral Hygiene for Cleaners

Figure 65: Basic First Aid Training

Figure 66: Risk Assessment & Risk Management Awareness

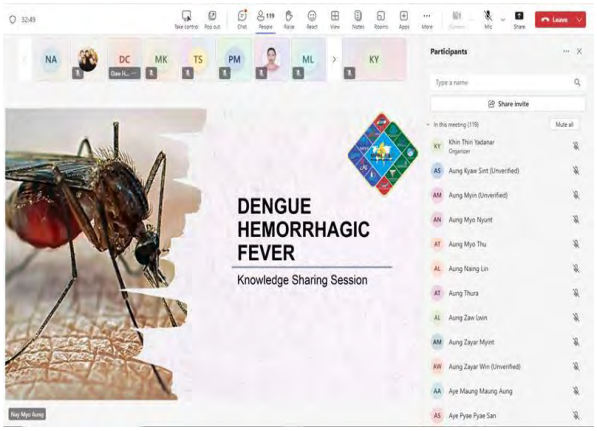


Figure 67: Dengue Hemorrhage Fever Awareness

Figure 68: New COVID-19 Variant (XFG) Awareness

Figure 69: Occupational Health Hazards Awareness

Figure 70: First Aid Refresher Training for GoC First Aiders

9.5 Effective Worker's Participation towards HSE

MPRL E&P has built a strong safety culture by encouraging employees to report unsafe conditions and actions. This proactive approach prevents accidents, reduces downtime, and lowers costs through early intervention.

In recognition of outstanding safety participation, the "Best Quality CARE Card Award" was awarded to both MPRL E&P and MOGE staff on a quarterly basis at Mann Field and MYO. This initiative highlights the company's commitment to continuous safety improvement.

Additionally, to acknowledge safety-conscious employees for their dedication to health, safety, and environmental initiatives, "Contribution Awards in HSE Activity" were awarded to deserving individuals, reinforcing the importance of safety in all operations.

Figure 71: Best HSE Outstanding Performer Award

Figure 72: Best Quality CARE Card Award

M.O.G.E.

MPRL E&P

SOCIAL PERFORMANCE REPORT

April 2025 - September 2025










Shared Value:

Contributing to Inclusive Growth

while Strengthening Competitive Advantage

10. Corporate Social Responsibility

10.1 Progress Summary

MPRL E&P is a purpose-driven organization in Myanmar's upstream energy sector, committed to conducting our business with high standards of governance, social responsibility, and environmental stewardship. Guided by sustainability principles, including the United Nations Global Compact (UNGC), we integrate responsible practices into our strategy, operations, and decision-making, contributing to employment, energy access, and local development while maintaining strong relationships with government, communities, and employees.

Between April 2025 and September 2025, MPRL E&P's CSR Program delivered impactful initiatives across multiple areas in Mann Field Communities. Community infrastructure projects included the completion and handover of solar-powered water pumping systems, provision of classroom furniture, and preparations for new infrastructure development projects, complemented by water quality testing and community engagement to ensure sustainability. Livelihood development efforts focused on agricultural growth, seed bank management, and income diversification,

supporting local farmers in tomato cultivation, facilitating chickpea marketing, and distributing sunflower seeds to prepare for the next cropping cycle.

Educational initiatives expanded scholarship opportunities and skill development for local youth, enrolling eight new students at No.5 Industrial Training Center (ITC - Magway), launching a Diploma in Agriculture at the State Agriculture and Livestock Institute (SALI - Pwint Phyu), and a welding course at No.5 ITC (Magway). Community capacity building encompassed the Summer Program, which included ThuKhaMain summer school, basic computer class, and basic and advanced art classes, along with an Online English Learning Program for local children and capacity building training sessions for staff and community volunteers.

Mobile clinics provided free healthcare services to 24,433 patients through 833 sessions, while also responding to emergencies and conducting follow-ups with vulnerable patients. Preventive care was reinforced by integrating diabetes and hypertension guidelines into patient records, installing health awareness signboards, delivering targeted programs on personal hygiene and skin health for schoolchildren and conducting tuberculosis prevention talk for local communities. Environmental stewardship was reinforced through community-led waste management, supporting Trash Hero Minbu's cleanup activities, piloting household-level community-managed compost stations in two villages, and organizing awareness campaigns for World Environment Day, Tree Planting Month, and World Cleanup Day.

MPRL E&P maintained transparent and responsive stakeholder engagement, resolving three pipeline-related OGM cases and contributing to a total of 190 cases fully resolved since 2014. The CSR Team strengthened communication through meetings with community leaders and committees, the biannual CSR review with MOGE, site inspections by the Environmental Conservation Department, and widespread distribution of newsletters, reports, and the Communication on Progress Report 2025 to the UNGC.

The MOGE Employee-Centered CSR Program supported the welfare of MOGE employees and their families through contributions to community and religious events, including donations at Mann Field Dhamayone, a golf tournament, a Waso robe donation, and a Sabbath day meal donation. The Program also advanced education by providing a full scholarship for the son of a Mann MOGE employee enrolled at No.5 ITC (Magway).

In sum, these initiatives reflect our holistic approach to sustainable business, integrating social investment, environmental stewardship, and active community engagement. By supporting well-being, fostering community development, and strengthening long-term resilience, we ensure that our operations generate meaningful and lasting benefits for Mann Field Communities and all stakeholders involved.

10.2. Our Approach & Objectives

We recognize our business interacts with a range of material sustainability issue areas and governance of our approach to managing our potential and actual impacts is key to operating more sustainably. Building on strong foundations, we aspire to create social value for society that is purposeful, proactive, mutually beneficial and respectful. We commit to a number of sustainability frameworks, standards and initiatives and we disclose data both as required by law and according to the requirements of those frameworks, standards and initiatives.

Our social investment strategy prioritizes the areas where we believe our investments will have the biggest potential to multiply our impact and achieve sustainable results for the 14 communities living near our operations in Mann Field. Our social investment themes have been:

- Community infrastructure
- Education, sanitation and basic health
- Livelihood development and economic empowerment
- Capacity building and partnerships
- Critical human needs and disaster response

In this regard, we continue to apply the community-led approach to our community initiatives in Mann Field in order promote inclusive and participatory decision-making, transparent and accountable village development, and strengthen grassroots level governance capacity.

At the department level, we are working to achieve the following goals which are ultimately tied to a set of Corporate Goals with regard to our Mann Field asset:

- Maintain a social license to operate from all key project stakeholders including community and regional government.
- Meet all legal requirements in compliance with the Myanmar EIA Procedures in Mann Field.
- Proactively build on our brand as a leading Myanmar national led upstream energy company to ensure both the government and general public are informed about the value we create as a business.

Our sustainability strategy is aligned with the UN Sustainable Development Goals, and we have an important role to play in supporting these ambitions. We can make the greatest contribution to six goals: Decent work and economic growth (Goal 8), Responsible consumption and production (Goal 12), Climate action (Goal 13), Life below water (Goal 14), Peace, justice and strong institutions (Goal 16) and Partnerships for the goals (Goal 17).

10.3. CSR Implementation Mechanism

The CSR & Communications Department implements social investment initiatives through a combination of direct action and active engagement with communities, as well as local and regional organizations, both public and private. Annual multi-stakeholder needs assessments in Mann Field inform the development of the CSR Work Program. For the Fiscal Year 2025-2026, USD 345,012 has been allocated to fund our CSR initiatives, while total expenditure through August 2025 amounts to USD 388,072.57.

The CSR Work Program clearly defines goals, rationales, timelines, and measurable outcomes, with each intervention guided by specific key performance indicators. Pilot projects are designed to ensure community involvement, build local capacity, and promote sustainability. Whenever possible, technical knowledge transfer accompanies input support, facilitating the transformation of subsistence agriculture and livestock practices into modern, productive systems.

Total Contributions Made Towards

Social Performance Initiatives Since 2012

MMK **26,204.49** million

&

USD **4.96** million

10.4. Our Performance in Numbers (April 2025 - September 2025)

10.5. Performance Highlights

The following section presents the key performance highlights achieved during the first half of Fiscal Year 2025-2026 (from April 2025 to September 2025). These highlights demonstrate MPRL E&P's continued commitment to responsible investment, transparent communication, and sustainable social impact across Mann Field Communities.

Key Highlights for the Month of April 2025

- Completed concrete water tank construction and water well drilling at Kyar Kan Village.
- Installed donor plaque for the provision of water well drilling and related accessories at Lay Eain Tan School.
- Facilitated seed loan collection and seed transfer process of Seed Bank Committees in Mann Field Communities.
- Accompanied Mann Field Youths for Batch-13 entrance exam at No.5 ITC (Magway).
- Launched the basic and advanced art classes for children in Mann Field Communities.
- Operated the Summer Program, including ThuKhaMain summer school, basic computer class, and basic and advanced art classes.
- Provided free healthcare services to 21,309 patients through 726 clinic sessions under the Mobile Clinic Program.
- Monitored the regular waste collection services and supported Trash Hero Minbu cleanups in Mann Field.
- Received one OGM case from Mei Bayt Kone Village in April 2025.
- Distributed Insight! Newsletter, Doh Mann Myay Newsletter, and Quarterly CSR Progress Report to the Magway Regional Government and local stakeholders.
- Contributed MMK 650,000 for the Pahtan Donation at Mann Dhamayone as part of the MOGE Employee-Centered CSR Program.
- Contributed MMK 500,000 to support the golf tournament jointly organized by Mann Oil Field and Htauk Sharpin-Htan Kaing-Yaynan Ma Oil Field of MOGE.
- Monitored and updated MPRL E&P's website as a key communication channel.

Key Highlights for the Month of May 2025

- Completed the solar-powered water pumping project and installed pipelines for water distribution in Kyar Kan Village.
- Collected harvesting and profit data for sunflower and chickpea crops from farmers in Chin Taung, Kywe Cha, Mei Bayt Kone, Pauk Kone, Auk Kyaung, and Kyar Kan Villages.
- Selected eight top-performing youths out of 14 candidates for enrollment in Batch-13 of No.5 ITC (Magway), based on entrance exam results.
- Completed the Summer Program, which included basic and advanced art classes, basic computer class, and the ThuKhaMain Summer School.
- Provided free healthcare services to a total of 21,868 patients through 745 clinic sessions under the Mobile Clinic Program.
- Conducted follow-up interviews with eye surgery patients in Mann Field to monitor post-operative recovery.
- Addressed one OGM case from Mei Bayt Kone Village concerning the removal of an old pipeline.
- Monitored regular waste collection services and supported Trash Hero Minbu cleanup activities in Mann Field.
- Briefed officials from the ECD (Magway) on ongoing social management efforts during their visit to Mann Field.
- Held discussions with the solar system supplier and the Kyar Kan Village Development Committee regarding the solar-powered water pumping system installation.
- Conducted the monthly community volunteer meeting at Auk Kyuang Pagoda and provided updates on ongoing CSR initiatives.
- Held an orientation meeting with the eight scholarship recipients and their parents to explain scholarship terms and conditions, followed by signing of agreement forms.
- Distributed Doh Mann Myay Newsletters to local stakeholders in Mann Field.
- Monitored and updated MPRL E&P's website as a key communication channel.

Key Highlights for the Month of June 2025

- Handed over the solar-powered water pumping project to the Kyar Kan Village Development Committee.
- Assessed the condition and functionality of the community infrastructure projects in Mann Field.
- Supported Seed Bank Committee in purchasing and distributing tomato seed packages and plastic mulches to farmers in Mann Kyoe Village.
- Received an appreciation certificate from the SALI (Pwint Phyu) for funding the pig farming research project.
- Provided scholarship support to youth from Mann Field Communities.
- Conducted one-month revision session for OELP classes at three community centers.
- Organized knowledge-sharing sessions to strengthen staff and volunteer capacity.
- Provided free healthcare services to 22,406 patients through 765 clinic sessions under the Mobile Clinic Program.
- Monitored regular waste collection services and supported Trash Hero Minbu cleanup activities.
- Organized World Environment Day 2025 campaign in Mann Field Communities.
- Conducted the second biannual CSR progress review meeting for the Fiscal Year 2024-2025 with MOGE in Nay Pyi Taw.
- Distributed Insight! Newsletter (Issue-42) and Doh Mann Myay Newsletter (Issue-16) to relevant stakeholders.
- Published Insight! Newsletter (Issue-43) and Doh Mann Myay Newsletter (Issue-17) on MPRL E&P's website.
- Contributed MMK 200,000 to the Warso robe donation of the Minbu District General Administration Department through MOGE (Mann Field).
- Monitored and updated MPRL E&P's website as a key communication channel.

Key Highlights for the Month of July 2025

- Handed over the solar-powered water pumping project to the Pauk Kone Village Development Committee.
- Collected drinking water samples from nine school filtration units for quality testing at ISO Tech Lab in Yangon.
- Monitored the cleaning schedules of water filtration units and handwashing stations in Mann Field schools, with the support of community-based volunteers and school teachers.
- Supported the Mann Kyoe Village Seed Bank Committee in distributing agricultural inputs to tomato farmers.
- Conducted final exams for the Online English Learning Program (OELP) at Aye Mya, Nan U, and Mann Kyoe Community Centers, and organized closing ceremonies at all three community centers.
- Provided free healthcare services to 23,296 patients through 794 clinic sessions under the Mobile Clinic Program.
- Affixed diabetes and hypertension care guidelines to clinic books and installed awareness signboards at Mobile Clinics for patient health education.
- Introduced a household-level, community-managed compost station pilot project in Mann Kyoe and Nan U villages.
- Conducted knowledge-sharing sessions on ‘Learn about Trees’ and tree planting activities at Auk Kyaung School and Mann Kyoe Monastery.
- Distributed the Doh Mann Myay Newsletter (Issue-17) to local stakeholders and the Ministry of Energy’s Ruby Jubilee magazines to three community centers.
- Submitted the Communication on Progress (CoP) 2025 to the United Nations Global Compact (UNGC) and released on MPRL E&P’s website.
- Monitored regular waste collection services and supported Trash Hero Minbu cleanup activities.
- Conducted a monthly volunteer meeting with community-based volunteers from surrounding communities of Mann Field.
- Organized knowledge-sharing sessions to strengthen staff and volunteer capacity.
- Monitored and updated MPRL E&P’s website as a key communication channel.

Key Highlights for the Month of August 2025

- Supplied 15 student desk-and-chair sets and 2 bag storage cabinets for the kindergarten classroom at Let Pa Taw School.
- Completed the solar-powered water pumping projects in Nan U and Ywar Thar Villages.
- Shared ISO Tech Laboratory's water quality test results with principals of Mann Field schools.
- Monitored the cleaning and maintenance of water filtration units and handwashing stations in Mann Field schools.
- Recorded the cultivation conditions of tomato farmers for the planting season and provided the necessary support.
- Coordinated with the Pauk Kone Village Seed Bank Committee to facilitate chickpea sales and ensure repayment of seed value.
- Provided scholarship support to youths in Mann Field Communities and followed up on their training progress and exam results.
- Conducted inter-departmental training session for the CSR Team and organized two knowledge-sharing sessions for the Community Volunteers.
- Delivered free healthcare services to 23,773 patients through 810 clinic sessions under the Mobile Clinic Program.
- Organized a health talk program on "Personal Hygiene and Skin Health" at Kyar Kan and Lay Eain Tan Schools.
- Implemented household-level community-managed compost station project in Mann Kyoe and Nan U Villages.
- Monitored waste collection services and supported Trash Hero Minbu cleanup activities in Mann Field.
- Distributed Doh Mann Myay Newsletters, Insight! Newsletters, and Quarterly CSR Progress Reports to the Magway Regional Government and local stakeholders.
- Contributed MMK 1,900,000 to the sabbath day meal donation at Mann MOGE Dhamayone for guests and worshipers.
- Monitored and updated MPRL E&P's website as a key communication channel.

Key Highlights for the Month of September 2025

- Prepared for the implementation of a solar-powered water pumping system and water tank construction project in Let Pan Ta Pin Village, the construction of a public toilet and community garden in Mann Kyoe Village, and the construction of a twin-pit toilet at Auk Kyaung Damayone.
- Supported the Green Schoolyard Program at Lay Eain Tan School by providing flower plants and pots to enhance the school environment.
- Monitored the cleaning and maintenance of water filtration units and handwashing stations in Mann Field schools.
- Monitored the tomato farmers' cultivation practices and provided necessary support.
- Assisted the Seed Bank Committees with the distribution of sunflower seeds to local farmers.
- Announced a scholarship program for a three-month welding course at No.5 ITC (Magway) for youths from 16 Mann Field Communities and informed MOGE (Mann Field) and the Mann Field Office to reach interested individuals.
- Organized a knowledge-sharing session for scholarship applicants for the SALI (Pwint Phyu).
- Continued providing scholarship support to youths from Mann Field Communities and followed up on their training progress.
- Conducted an inter-departmental training session for the CSR Team and organized a knowledge-sharing session for Community Volunteers.
- Delivered free healthcare services to 24,433 patients across 833 clinic sessions as part of the Mobile Clinic Program.
- Organized a health awareness session on 'Tuberculosis Prevention' at Auk Kyaung Pagoda.
- Monitored waste collection services and supported Trash Hero Minbu cleanup activities in Mann Field.
- Organized the World Cleanup Day 2025 campaign at Mann Field Communities.
- Prepared the periodic CSR progress reports for the Fiscal Year 2025-2026.
- Published Insight! Newsletter (Issue-44) and Doh Mann Myay Newsletter (Issue-18).
- Monitored and updated MPRL E&P's website as a key communication channel.

10.6. Social Performance Progress (April 2025 - September 2025)

10.6.1 Community Infrastructure Development

MPRL E&P remains committed to developing community infrastructure in Mann Field by addressing local needs while adapting to evolving community priorities. Our approach emphasizes community participation to strengthen local capacity in planning, design, implementation, and maintenance, making use of locally available resources wherever possible. Between April and September 2025, MPRL E&P's CSR Program delivered a series of community infrastructure projects across Mann Field Communities, focusing on water access, sanitation, and school facilities.

In April 2025, the CSR Program completed the construction of a concrete water tank and water well in Kyar Kan Village. The project cost MMK 14,843,900, of which MPRL E&P contributed MMK 13,165,350 while the community contributed MMK 1,678,550, reflecting a shared commitment to sustainable water access.

By May 2025, a solar-powered water pumping system with pipelines for water distribution was completed in Kyar Kan Village. The project was implemented in close coordination with the Village Development Committee and the solar system supplier to ensure smooth execution. On 06 June 2025, the project was officially handed over to the Kyar Kan Village Development Committee. With a total cost of MMK 6,921,100, the CSR Program covered MMK 6,021,200, while the community contributed MMK 890,900.

In June 2025, the CSR Team began evaluating the functionality of infrastructure projects completed in Fiscal Year 2024-2025. With the reopening of schools, regular monitoring visits were carried out to ensure proper cleaning and maintenance of water filtration units and handwashing stations across Mann Field schools.

On 18 July 2025, another solar-powered water pumping project was handed over, this time to the Pauk Kone Village Development Committee. The project cost MMK 5,090,500, with MMK 4,630,500 funded by MPRL E&P and MMK 460,000 contributed by the community. That same month, the CSR Team conducted water quality testing in Mann Field schools. Samples were sent to ISO Tech Laboratory in Yangon to ensure the safety of drinking water during the rainy season. The results confirmed that filtration systems were working effectively to provide clean, safe water for schoolchildren.

In August 2025, the CSR Program expanded the support to education facilities by providing 15 student desk-and-chair sets and 2 bag storage cabinets to Let Pa Taw School's kindergarten, creating a more supportive learning environment for young students. Later that month, two more solar-powered water pumping projects were completed and handed over:

- On 21 August 2025, to Ywar Thar Village Development Committee (total cost: MMK 3,138,500, with MPRL E&P contributing MMK 2,819,500 and the community MMK 319,000).
- On 27 August 2025, to Nan U Village Development Committee (total cost: MMK 4,091,600, with MMK 3,717,000 from MPRL E&P and MMK 374,600 from the community).

That same month, the Team also shared the results of the water quality tests with school principals, ensuring transparency and reinforcing the importance of safe drinking water.

In September 2025, preparations advanced for two upcoming projects: the installation of a solar-powered water pumping system with a water tank in Let Pan Ta Pin Village and the construction of a public toilet and community garden in Mann Kyoe Village. The CSR Team also enriched the learning environment at Lay Eain Tan School by supplying flower plants and pots as part of the Green Schoolyard Program. Continuous monitoring of filtration units and handwashing stations further strengthened hygiene standards across schools.

Figure 73: Monitoring the Progress of Concrete Water Tank Construction and Water Well Drilling at Kyar Kan Village

Figure 74: Completing Solar-Powered Water Pumping Project and Installing Pipelines for Water Distribution at Kyar Kan Village

Figure 75: Transferring Solar-Powered Water Pumping Project to Kyar Kan Village Development Committee

Figure 76: Transferring Solar-Powered Water Pumping Project to Pauk Kone Village Development Committee

Figure 77: Transferring Solar-Powered Water Pumping Project to Ywar Thar Village Development Committee

Figure 78: Transferring Solar-Powered Water Pumping Project to Nan U Village Development Committee

Figure 79: Providing Student Desk-and-Chair Sets and Bag Storage Cabinets to Let Pa Taw Village School

Figure 80: Assessing Current Condition and Functionality of Community Infrastructure Projects Constructed in the Fiscal Year 2024-2025

Figure 81: Conducting Water Sample Collection from Nine School Filtration Units for Quality Testing and Sharing Results with School Principals

Figure 82: Supporting Green Schoolyard Program at Lay Eain Tan School by Supplying Flower Plants and Pots

Figure 83: Monitoring Maintenance of Water Filtration Units and Handwashing Stations at Schools in Mann Field

Case Study

Solar Pump Brings Life to Mann Field

Solar energy, one of the cleanest and most renewable power sources, is rapidly being adopted worldwide. According to SolarPower Europe, global installed solar PV capacity could reach 655 GW in 2025, a 10% increase from the previous year. In agriculture especially, solar-powered irrigation is proving vital for farmers facing economic and environmental pressures.

In Myanmar, solar energy is being increasingly adopted across multiple sectors. The national government is actively promoting its use to support the growth of agro-based industries, with a focus on improving access to irrigation water, advancing solar-powered crop-drying processes, and accelerating the establishment of solar installation and production businesses.

In alignment with the Ministry of Energy's call to expand solar energy use in electricity-based operations, MPRL E&P has integrated solar-powered solutions into its Community Investment Program in Mann Field. The company remains committed to ensuring that its CSR initiatives in Mann Field communities are environmentally sustainable, economically efficient, and aligned with long-term development goals. Recognizing the vital connection between water access and community well-being, MPRL E&P introduced solar-powered water pumping systems in villages around Mann Field. Today, this initiative serves as a model for renewable energy integration within its broader CSR efforts, particularly under the Community Investment Program.

"Since Fiscal Year 2023–2024, MPRL E&P has integrated solar-powered water pumping systems into its Community Investment initiative, in alignment with the Ministry of Energy's encouragement to expand solar energy use in CSR Programs. As of June 2025, a new water well has been drilled and a solar system installed in Kyar Kan Village, while the existing well in Pauk Kone Village has been upgraded. We are now preparing to upgrade the wells in Nan U and Ywar Thar Villages, with installations scheduled to begin in August," said U Kyaw Nyein Chan, CSR Associate from the CSR & Communications Department.

The journey began in Mann Kyoe Village in Fiscal Year 2023–2024, where a solar-powered water pump now provides clean water to more than 1,600 residents. Over the next two years, the initiative expanded to Aye Mya, Kywe Cha, Kyar Kan, Pauk Kone, Nan U, and Ywar Thar Villages. Today, eight villages in Mann Field benefit from these systems, reducing reliance on fuel while improving daily life.

U Aung Ko, a volunteer from Pauk Kone Village, shared, "I have been serving as a volunteer for over three years. Our village has around 130 households and nearly 500 people. This year, with the installation of the solar-powered water system in our well, life has become much easier. Previously, the entire village relied on this single well, and when electricity went out, it caused real hardship. Although there are a few private wells, most of us depended on this one, filling six to seven water tanks each day. Now, thanks to the solar-powered system, we can pump water throughout the day, which has made a huge difference. The village uses water meters to distribute and charge fairly, and with lower electricity costs, we can invest more in maintaining pipelines and supporting other community development projects. MPRL E&P's CSR Program provided all the solar panels and equipment, while the village built the solar frame and actively participated in the installation. I feel truly grateful to be part of these development efforts and deeply thankful for the support that made them possible."

Altogether, eight villages in Mann Field now benefit from solar-powered water pumping systems, marking a significant reduction in fuel dependency. Beyond the technological shift, the project delivers multiple benefits: improved access to clean water, enhanced public health, reduced environmental impact, and lower household energy costs.

Daw Nwet Thi, Village Administrator of Nan U, which has 123 households and about 350 residents, shared, “I have been serving in this role for nearly a decade. Previously, we had to pump water using a compressor every four hours, and when electricity went out, accessing water was a real challenge. At one point, the compressor even broke down, and we had to rent a small pump just to get by. Now, with the solar-powered system, we can draw water using sunlight even when electricity is unavailable. This has greatly improved water access for our village. Aside from a few private wells, most households rely on this main well. MPRL E&P, through its CSR Program, provided full support for the solar system—covering costs, supervising the project, and ensuring proper connections. Our community contributed by preparing the site and assisting with installation. Installing this solar-powered system for our main well has brought significant benefits to Nan U, and we are deeply grateful to MPRL E&P’s CSR Program.”

As Myanmar strengthens its commitment to renewable energy, MPRL E&P’s initiative stands as a strong example of responsible business in action. Aligned with the United Nations Sustainable Development Goals on clean water, affordable clean energy, and environmental stewardship, the company’s CSR Program demonstrates how solar-powered water systems can achieve more than just meeting immediate needs. They provide reliable access to water while driving lasting, positive change for the Mann Field Communities.

10.6.2 Community Livelihood Development

MPRL E&P is committed to improving the lives of Mann Field Communities and supporting their path toward self-reliance by implementing focused interventions in agriculture, horticulture, and livestock management. From April 2025 to September 2025, the CSR Program continued to prioritize agricultural development, with a strong focus on enhancing the Seed Bank Program, boosting crop production, and diversifying rural income sources. During this period, the CSR Team worked closely with Seed Bank Committees to support seed loan collection, repayment, and timely distribution of agricultural inputs, complemented by regular field visits to monitor progress and provide technical guidance to farmers.

In April 2025, the CSR Team supported the Seed Bank Program by engaging with farmers in Chin Taung, Mei Bayt Kone, Pauk Kone, and Kyar Kan Villages to collect cultivation and harvest data on sunflower and chickpea crops. Assistance was also provided to Seed Bank Committees to facilitate seed loan collection and transfers, ensuring the continuity of the revolving seed system.

June and July were critical months for tomato cultivation. The CSR Team worked closely with Seed Bank Committees to provide farmers with timely access to essential inputs such as tomato seeds, fertilizers, and plastic mulches. In total, 15 farmers in Mann Kyoe Village received these resources, enabling them to prepare their fields and optimize crop productivity. By July, additional support ensured that tomato farmers across Mann Field were equipped with the necessary materials to enter the planting season on schedule.

In August 2025, the CSR Team collaborated with the Pauk Kone Seed Bank Committee to facilitate the marketing of chickpea harvests, supporting farmers in selling their produce and repaying seed loans to strengthen the revolving system. Seed Bank Committees in Mann Kyoe and Kywe Cha Villages received technical guidance on data management, operations, and monitoring of tomato crop conditions.

In this Fiscal Year 2025-2026, a total of 22 farmers engaged in tomato cultivation across 6.3 acres of land with support from the CSR Program. Of these, 20 farmers began planting on their own fields, while 2 farmers postponed cultivations until weather conditions became more favorable. Throughout September 2025, the CSR Team closely monitored the tomato farms, providing technical guidance to strengthen cultivation practices. At the same time, to prepare communities for the next cropping cycle, the Program supported Seed Bank Committees in distributing sunflower seeds, helping ensure agricultural readiness and sustained productivity for local farmers in the upcoming season.

Figure 84: Facilitating Seed Loan Collection and Seed Transfer Process of Seed Bank Committees in Mann Field Communities

Figure 85: Distributing Tomato Seed Packages and Plastic Mulches to Local Farmers in Mann Kyoe Village

Figure 86: Supporting Mann Kyoe Village Seed Bank Committee in Distributing Agricultural Inputs to Tomato Farmers

Figure 87: Tomato Farmers Gearing Up for the Farming Season

Figure 88: Monitoring Tomato Farming Progress in Mann Field Communities

Case Study

Seed Bank Program: Strengthening Community Livelihoods

Since the Fiscal Year 2018–2019, MPRL E&P's CSR Program has been supporting farmers in Mann Field Communities through the Seed Bank Program, a livelihood development initiative designed to ensure access to quality seeds and introduce modern agricultural practices. The program is implemented in collaboration with Village Administrators, Village Development Committees, and local farmers, with the CSR Team providing technical and organizational support.

Each participating village has formed a Seed Bank Committee, composed of at least five members, including a chairperson, a treasurer, and an accountant. These committees play a central role in managing the program, assessing farmers' needs before the planting season, registering eligible farmers, procuring and distributing quality seeds and farming inputs, and ensuring repayment after harvest.

The seeds distributed so far include chickpea, sunflower, and tomato, supported by essential inputs such as plastic mulch rolls. The revolving nature of the fund, where farmers repay with a minimal interest rate, ensures the sustainability of the program, as the collected funds are reinvested into agriculture-related development activities within each village.

U Soe Thein, the treasurer of the Mann Kyoe Village Seed Bank Committee, reflected on the progress made, "From the beginning, I have been serving as a treasurer. The Seed Bank Committee initially supported only a small group of farmers with tomato seeds and plastic mulch rolls. When their crops succeeded, more farmers were interested to participate, and demand quickly grew.

This year, our Seed Bank distributed 21 rolls of plastic mulch and 27 packets of tomato seeds, tailored to the farmers' preferred varieties and quantities. For the first time, we also had enough funds to provide fertilizer to four farmers as a pilot project. This marks an important step forward, as we aim to keep expanding our support while promoting better farming methods for the community."

By working closely with Seed Bank Committees, the CSR Team helps ensure timely delivery of seeds, fertilizers, and other agricultural inputs ahead of the planting season. The CSR Team also facilitates seed loan collection and seed transfer process of Seed Bank Committees. This preparation allows farmers to efficiently cultivate their fields and maximize productivity.

The Seed Bank Program has not only improved agricultural yields but also strengthened local leadership and collective decision-making. As revolving funds grow and new inputs are introduced, the program continues to evolve, helping farmers adopt more resilient practices and build a sustainable future for their communities.

10.6.3 Educational Partnership Program

MPRL E&P's CSR Program partners with government agencies and training institutions to strengthen technical and vocational skills among Mann Field Communities. From April to September 2025, the educational partnership program continued to provide youth with access to technical and vocational education, offering practical field experiences, and tailored support to build employability skills and professional competencies.

In April 2025, the CSR Program facilitated the participation of 15 scholarship applicants from Mann Field Communities in entrance exam interviews at No.5 Industrial Training Center (ITC - Magway) for Batch-13 intake. The CSR Team arranged transportation and provided logistical support to ensure applicants could attend their exams.

In May 2025, a new batch of eight students which included three females and five males was enrolled at No.5 ITC (Magway), with one student supported under the MOGE Employee-Centered CSR Initiative. To guide their training journey, the CSR Team conducted an orientation session with the students and their parents, clarifying scholarship terms and formalizing agreements.

Beyond scholarships, the CSR Program supported a project-based learning initiative on pig farming as part of student research activities at the State Agriculture and Livestock Institute (SALI - Pwint Phyu). The CSR Program contributed MMK 4,200,000 toward the project, which had a total expenditure of MMK 5,580,800. The project generated a total income of MMK 7,119,000, resulting in a net profit of MMK 1,538,200.

In August 2025, the CSR Team announced a scholarship program for a three-year Diploma in Agriculture at SALI (Pwint Phyu), open to youths under 22 years of age from 16 surrounding villages as well as children of MOGE employees in Mann Field.

By September 2025, nine new applications had been received for the SALI (Pwint Phyu) scholarship program. To encourage participation, the CSR Team organized a knowledge-sharing session where two former SALI scholarship recipients shared their academic and career experiences.

To further expand opportunities, the CSR Program also announced a short-term scholarship for a three-month welding course at No.5 ITC (Magway), available to youth from 16 Mann Field Communities. Notices were shared with MOGE (Mann Field) and the Mann Field Office to reach a wider pool of interested applicants. During the reporting period, ongoing scholarship monitoring confirmed steady progress from nine current recipients—eight at No.5 ITC (Magway) and one at the University of Medicine (Magway).

Figure 89: Accompanying Mann Field Youths for Batch-13 Entrance Interview Exam at No.5 ITC (Magway)

Figure 90: Enrolling Mann Field Youths at No.5 ITC (Magway)

Figure 91: Monitoring Academic Progress of No.5 ITC (Magway) Scholarship Trainees

Figure 92: Receiving Appreciation Certificate from SALI (Pwint Phyu) for Funding the Project-Based Learning on Pig Farming Research

Figure 93: Announcing Scholarship Program for Diploma in Agriculture at SALI (Pwint Phyu)

Figure 94: Announcing Scholarship Program for Welding Course at No.5 ITC (Magway)

Figure 95: Organizing Knowledge Sharing for Scholarship Applicants at SALI (Pwint Phyu)

Figure 96: Accompanying Mann Field Youths for Entrance Interview Exam at SALI (Pwint Phyu)

Case Study

SALI Graduates Secure Promising Careers, Applying Classroom Knowledge to Real-World Agricultural Challenges

Through the scholarship support provided by MPRL E&P's CSR Program, seven youths (four males and three females) from Mann Field Communities successfully completed a three-year diploma course at the State Agriculture and Livestock Institute (SALI Pwint Phyu) in early 2025. All scholarship recipients passed each academic year consecutively without needing to retake written or practical exams, and they have now begun entering the workforce.

Currently, these young individuals are employed across various sectors within the agriculture industry. They have shared how the theoretical knowledge and practical skills they acquired during the three-year course are now being applied in their respective fields.

Ma Wai Wai Linn, Staff at Agro Great Company

"After graduating from the SALI (Pwint Phyu), I began working at Agro Great, a seed production company. As a field staff member, I work directly with farmers, offering guidance on crop cultivation and maintenance. The lessons I learned, both theoretical and hands-on, are incredibly useful in my current role. I've become proficient in practical farming methods like preparing crop management and pest control. Working in the field has also helped me understand the importance of responsibility and accountability. It's inspired me to aim higher in my career. That's why, alongside work, I'm now preparing for the entrance exam to the Yezin Agricultural University."

Ma Chit Hnin Phyu, Staff at Agro Great Company

"While preparing for the entrance exam of Yezin Agricultural University, the exam was postponed, so I joined Agro Great to gain work experience. My daily responsibilities include managing inventory, visiting farms to support farmers, and sharing agricultural information. The skills I learned in school, like calculating plant quantities based on land conditions, measuring field acres, and planting techniques, are directly applicable to my work. Thanks to the solid academic and practical foundation I gained, I was able to enter the workforce with confidence."

Ma Thida Aye, Shop Assistant

"I currently work at a retail shop in town, but I apply my agricultural knowledge to help with my parents' farming business. Since we practice crop rotation at home, I also get to learn traditional farming methods and share what I've learned in school with my parents. I apply organic pesticides I've prepared Fish Amino Acid. In the future, I plan to lead our family farming business using the knowledge I gained. I also hope to work at an agrochemical shop to deepen my understanding of these products and use them more effectively on our farm."

Mg Zayyar Phyo, Staff at Agrochemical Shop

"After earning an agricultural diploma through MPRL E&P's support, we had many job opportunities. The qualification allows us to work in both public and private sectors, supporting our livelihoods. Currently, I'm working at my uncle's agrochemical shop to gain experience. I've witnessed how classroom knowledge can be transformed into practical solutions for farmers. This experience has sparked my interest in seed production, which I now find more engaging than pesticide work. I'm planning to pursue a career in a seed production company, using my academic foundation to contribute meaningfully to the agricultural sector."

Mg Zay Linn Aung, Staff at Aka Yarzar Company

"Right after graduation, I secured a job at Aka Yarzar, a company specializing in agricultural products. As a field staff, I identify farmers' challenges and advise them on the most suitable agricultural products from our company. These companies prioritize hiring agricultural science graduates like us because our training included a lot of fieldwork. With our experience demonstrating pesticide use and managing field trials, we are seen as particularly suitable for these roles. In today's job market, while opportunities are available for both men and women, men often have an advantage due to travel requirements. The hands-on training we received at school gives us an advantage in securing such jobs."

Mg Kyaw Soe Lwin, Staff at Mingalar Hinthar Company

"Finding a job after graduating from the SALI (Pwint Phyu) wasn't too difficult. The timing of company recruitment matched well with our graduation. I now work at Mingalar Hinthar, a company distributing agricultural pesticides and fertilizers. My duties include distributing agricultural products to farmers, providing field prescriptions, and conducting practical work at the company's experimental farms, all of which are related to what I trained for in school. We were well-prepared to educate farmers and apply our knowledge in real-life situations. The school's practical teaching style helped us transition smoothly into the workforce. It made me realize how vital my education is, not just to my success, but also to the farmers I work with."

Mg Hein Pyae Sone, Staff at Mingalar Hinthar Company

"MPRL E&P's scholarship eased my financial burden and allowed me to fully focus on my studies. Our SALI school emphasized teamwork, hands-on training, and real-world exposure, which gave me a solid foundation for my current role as field staff at Mingalar Hinthar. I now travel to rural areas providing agricultural knowledge and working closely with farmers, exactly the kind of work I was trained for. The skills and mindset I developed through my education have made my professional transition smoother and more meaningful. I'm truly grateful to both MPRL E&P for their financial support and the SALI (Pwint Phyu) for providing me with such a strong educational foundation."

10.6.4 Community Capacity Building

MPRL E&P is dedicated to empowering community members by equipping them with the skills and competencies needed to take greater control of their lives and actively contribute to inclusive local development. This approach not only fosters stronger community cohesion but also builds resilience, enabling communities to better address economic and social challenges. Between April and September 2025, the CSR Program's community capacity building initiatives concentrated on strengthening the skills, knowledge, and capabilities of community members, volunteers, and staff to enhance participation and ensure the long-term sustainability of development projects.

In April 2025, the CSR Team launched basic and advanced art classes as part of the Summer Program, with the basic class conducted at Kyar Kan Dhamayone and the advanced class at Mann Kyoe Community Center. These weekday sessions ran from 22 April to 23 May 2025 and were delivered by local artists. Alongside the art classes, the Summer Program also included the ThuKhaMain summer school and a basic computer class, collectively engaging 77 trainees which included 23 children in ThuKhaMain summer school, 15 youths in the computer class, 22 children in the basic art class, and 17 in the advanced art class. Regular monitoring and support ensured effective learning throughout the program.

During May 2025, the CSR Team conducted examinations for the ThuKhaMain summer school and the basic computer class, as well as final drawing sessions for both art classes. The Summer Program concluded with a closing ceremony on 24 May 2025 at Auk Kyaung Pagoda, attended by 118 participants, where completion certificates and special awards were presented to outstanding trainees.

In June 2025, the CSR Team conducted a one-month revision of the Online English Learning Program (OELP) at Aye Mya, Nan U, and Mann Kyoe Community Centers, holding weekend sessions for 14 students at Aye Mya, 15 at Mann Kyoe, and 11 at Nan U. The program culminated in July with examinations and a closing ceremony to celebrate students' achievements and distribute certificates of completion, motivating continued engagement in English learning.

To strengthen staff and volunteer capacity, the CSR Team organized multiple knowledge-sharing sessions during this period. In June, two inter-departmental training sessions for the CSR Team members focused on enhancing understanding of company culture, internal procedures, and overall work capacity. A dedicated session on 'Self-Leadership' for Community Volunteers aimed to boost accountability, confidence, and proactive involvement in community development.

In August 2025, the CSR Team conducted an inter-departmental training session for CSR members to further standardize internal processes and improve efficiency.

Additionally, two knowledge-sharing sessions were held for both Community Volunteers and the CSR Team on 'Addressing Community Needs' and 'Effective Problem Solving,' strengthening skills critical for community engagement.

In September 2025, further capacity-building activities included a two-day inter-departmental training on basic computer skills for the CSR Team members to enhance daily office task efficiency. Moreover, a knowledge-sharing session on 'Facilitation Skills' was conducted for both Community Volunteers and the CSR Team, aimed at improving facilitation techniques and reinforcing the effectiveness of community engagement and development initiatives.

Figure 97: Operating One-Month Revision for OELP Classes at Aye Mya, Nan U and Mann Kyoe Community Centers

Figure 98: Conducting Final Exams for OELP Classes at Aye Mya, Nan U and Mann Kyoe Community Centers

Figure 99: Organizing OELP Closing Ceremonies Across Three Community Centers

Figure 100: Organizing Basic and Advanced Art Classes for Children in Mann Field

Figure 101: Organizing ThuKhaMain Summer School at Aye Mya Community Center

Figure 102: Organizing Basic Computer Class for Youths in Mann Field Communities

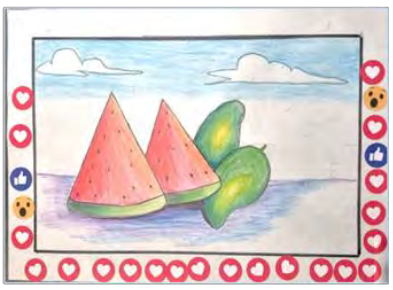


Figure 103: Organizing Closing Ceremony of Summer Program at Auk Kyaung Pagoda and Awarding Outstanding Trainees

Figure 104: Delivering Monthly Knowledge-Sharing Sessions for Community Volunteers and CSR Team Members

Case Study

Shaping Summertime Experiences: Expanding Learning and Creative Opportunities for Mann Field Youth

Recognizing summer as a valuable opportunity to foster growth, learning, and creativity, MPRL E&P's CSR Program has transformed the traditional school break into a season of opportunity through its Community Capacity Building initiative. This article highlights four core classes featured in the Summer Program—showcasing the training courses offered, the voices of those involved, and the impact made possible through MPRL E&P's thoughtful strategies to improve learning accessibility for youth in Mann Field. Let's explore how these collective efforts are reshaping summertime experiences.

Empowering Youth with Digital Skills

As part of its ongoing Community Capacity Building efforts, MPRL E&P launched a Basic Computer Training course this summer to equip local youth with essential digital skills. In partnership with MCC Computer Training Center (Minbu), the program kicked off on 15 March 2025 and welcomed participants aged 16 and above from the surrounding Mann Field Communities.

U Thawtar Swe, a trainer from MCC (Minbu), shared, “When MPRL’s CSR Team approached us about offering computer training for youths in Mann Field, we were glad to collaborate. I had long dreamed of bringing this kind of training to rural communities, but in the past, challenges, especially transporting equipment, made it difficult. Thanks to MPRL E&P’s support, including logistics, that vision finally became a reality. We taught Microsoft Office 2019 and Adobe PageMaker—skills that are increasingly essential for office work and job readiness. While some younger students found the standardized curriculum a bit challenging, the program overall was a great success. I believe future sessions would be even more effective if we grouped students by skill level. I am truly grateful to MPRL E&P and the dedicated staff who helped bring this training to life.”

Held every weekend at the Nann U Community Center through 18 May, the course offered hands-on training in fundamental computer applications—including Windows, Microsoft Office, and internet use. A total of 15 youths participated, gaining both confidence and competence in digital literacy, practical skills that pave the way for future educational and employment opportunities.

Fostering Creativity through Art

Recognizing that holistic development extends beyond academics, MPRL E&P also organized Summer Art Classes to foster creativity and self-expression among children. From 22 April to 23 May, two parallel programs were conducted:

- A Basic Art Class for children aged 6 to 12, held in Kyar Kan Village, welcomed 22 trainees.
- An Advanced Art Class for 17 children who had previously completed the basic program, conducted at the Mann Kyoe Community Center.

These weekday sessions created safe, inspiring spaces where children could connect with peers, express themselves through art, and build confidence in their abilities. The classes promote fine motor skills and creative thinking—fundamental qualities that support academic and emotional development.

ThuKhaMain Summer School for Students

To further support academic continuity during the summer, the CSR Program piloted the ThuKhaMain Summer School in Aye Mya Village from March to May 2025. This program was designed for Grade 4 students as a pilot project and utilized the ThuKhaMain offline learning app, which aligns with Myanmar's national basic education curriculum. The app provides engaging video lessons that are accessible without an internet connection.

"Since attending the ThuKhaMain Summer School, my children have become more focused in class and noticeably more active. As parents, we stay involved by managing drop-offs, pickups, and making sure they do their homework. We want them to excel academically, which is why we actively embrace the training opportunities provided through the CSR initiative. Both of my children are also enrolled in the online English course. If more suitable courses are offered in the future, I'll continue to support their participation," said Daw Ei Ei Cho, parent of two trainees.

With the support of a Community Education Facilitator, the program created an interactive learning environment at Aye Mya Community Center, helping students retain academic growth and build digital literacy.

"This program is designed to support Grade-4 students, particularly in English and Mathematics, using content from the ThuKhaMain Education App," said Naw May Pale Htoo, Junior CSR Officer. "Trained facilitators deliver lessons through projectors, guide students through exercises, and assist with homework. With its user-friendly interface and offline access, the app makes learning more engaging and consistent, helping students stay motivated and improve steadily."

Widely adopted in private and international schools across Myanmar, the ThuKhaMain App is reshaping education by enabling teachers to deliver interactive, personalized lessons. Instead of textbook lectures, students engage with animated videos and tailored exercises, turning passive learning into active participation. This shift boosts student engagement and achievement while supporting teachers in delivering higher-quality instruction.

Celebrating Summer Success

The summer efforts culminated in a heartwarming closing ceremony held on 24 May in Auk Kyaung Village. The event brought together 118 attendees, including students, parents, trainers, Village Development Committee members, local administrators, community volunteers, and CSR Field Staff. It was a proud moment as trainees received their completion certificates, and paintings from the art classes were displayed—highlighting the creativity and progress of the young participants.

Saw Christopher, CSR Associate, gave an overview of the Summer Training Courses, "Throughout the training sessions, we observed that the children were able to follow the lessons well and retain what they had learned. The use of video clips had a particularly positive impact on their English pronunciation and made learning more engaging overall. Although the curriculum remained the same, the introduction of interactive teaching methods significantly enhanced the students' learning experience. While it took a little time for them to adjust, they gradually became more interested and eager to learn through the video-based approach. As for the Basic Computer Skills Course—the first of its kind in the area—we saw overwhelming interest from local youths. Although we initially started with 15 trainees, every one of them demonstrated

strong commitment and completed the course with perfect attendance and enthusiasm."

Among the 23 Grade-4 students who took part in the final assessment, the top three performers were recognized for their academic excellence. Ma Thaw Tar Shin Thant Lwin earned first prize with a score of 91 out of 100. Maung Khun Satt Paing followed closely, securing second prize with 90.5, and Ma Khun Su Cho received third prize with 90. These recognitions celebrate not only their academic achievement but also their dedication and hard work throughout the program.

"Since computer skills are essential for my current job, I joined the course to strengthen my capabilities. We learned the basics of computing, and the experienced instructors taught us in a structured, practical way. They not only explained the theory clearly but also shared real-world knowledge to deepen our understanding," said Maung Aung Bo Bo, School Office Assistant at Sin Gaung High School and top scorer in the theory test.

Running alongside the academic training, all students maintained perfect attendance throughout the two-month Basic Computer Skills Training Course. Upon completion, they were awarded certificates of completion from the MPRL E&P CSR Program and the MCC Training Center (Minbu), marking an important milestone in their learning journey and future readiness.

The Summer Program is more than just a seasonal initiative; it reflects MPRL E&P's commitment to sustainable community development. By investing in accessible education, creativity, and vocational skills, the company continues to build pathways for the children and youth of Mann Field to grow into confident, capable individuals. As these young minds return to school and daily life, they carry with them not only new skills but also a stronger sense of purpose, connection, and inspiration—fueled by a summer well spent.

10.6.5 Community Healthcare Program

MPRL E&P's CSR Program introduced the Mobile Clinic initiative in September 2018 to provide primary healthcare services for children, senior residents, and needy individuals in Mann Field. The mobile clinics, operating at six village locations, delivered free healthcare to a total of 24,433 patients across 833 clinic sessions by September 2025.

During this reporting period, the CSR Team responded to emergencies, such as a home visit for a child experiencing fever-induced fits, and followed up with elderly patients who had undergone eye surgery to monitor recovery and provide further support.

In addition to medical consultations, the program emphasized preventive healthcare and health education. In July 2025, diabetes and hypertension care guidelines were incorporated into clinic records and explained to patients individually, while awareness signboards were installed at the mobile clinic sites to reinforce health messaging.

The CSR Team also addressed prevalent hygiene issues among children caused by bathing in unclean river water by organizing personal hygiene and skin health awareness programs at Kyar Kan School with 156 attendees on 20 August 2025 and Lay Eain Tan School with 157 attendees on 27 August 2025. Before these sessions, Dr. Zay Yan Paing Thu, Junior Site Doctor of MPRL E&P, screened and treated students for skin-related conditions, ensuring early intervention.

Further community engagement included a health talk on tuberculosis prevention at Auk Kyaung Pagoda on 14 September 2025, led by Dr. Kyaw Ye Htut, MPRL E&P's Site Doctor. The session was attended by 237 participants and focused on raising awareness about TB prevention, early detection, and treatment.

To ensure patient safety and clinic hygiene, the CSR Team conducted regular cleaning and sterilization of mobile clinic equipment and facilities. Through these combined efforts, the Community Healthcare Program strengthened access to quality healthcare, promoted preventive health practices, and reinforced community health education in Mann Field Communities.

Figure 105: Conducting Post-Operative Follow-up Interviews with Eye Surgery Patients in Mann Field Communities

Figure 106: Gathering Feedback from Mobile Clinic Patients

Figure 107: Providing Diabetes and Hypertension Care Education, Affixing Guidelines to Clinic Books, and Installing Awareness Signboards at Mobile Clinics

Figure 108: Organizing Mobile Clinic Program for Mann Field Communities

Number of Patients (21 February 2022 - 24 September 2025)

Village	Session	Male	Female	Total
Kyar Kan	170	1,132	4,093	5,225
Kywe Cha	167	1,383	3,768	5,151
Lay Eain Tan	171	1,222	3,910	5,132
Let Pan Ta Pin	172	1,017	3,562	4,579
Aye Mya	77	580	1,890	2,470
Nan U/ Auk Kyaung	76	438	1,438	1,876
Total	**833**	**5,772**	**18,661**	**24,433**

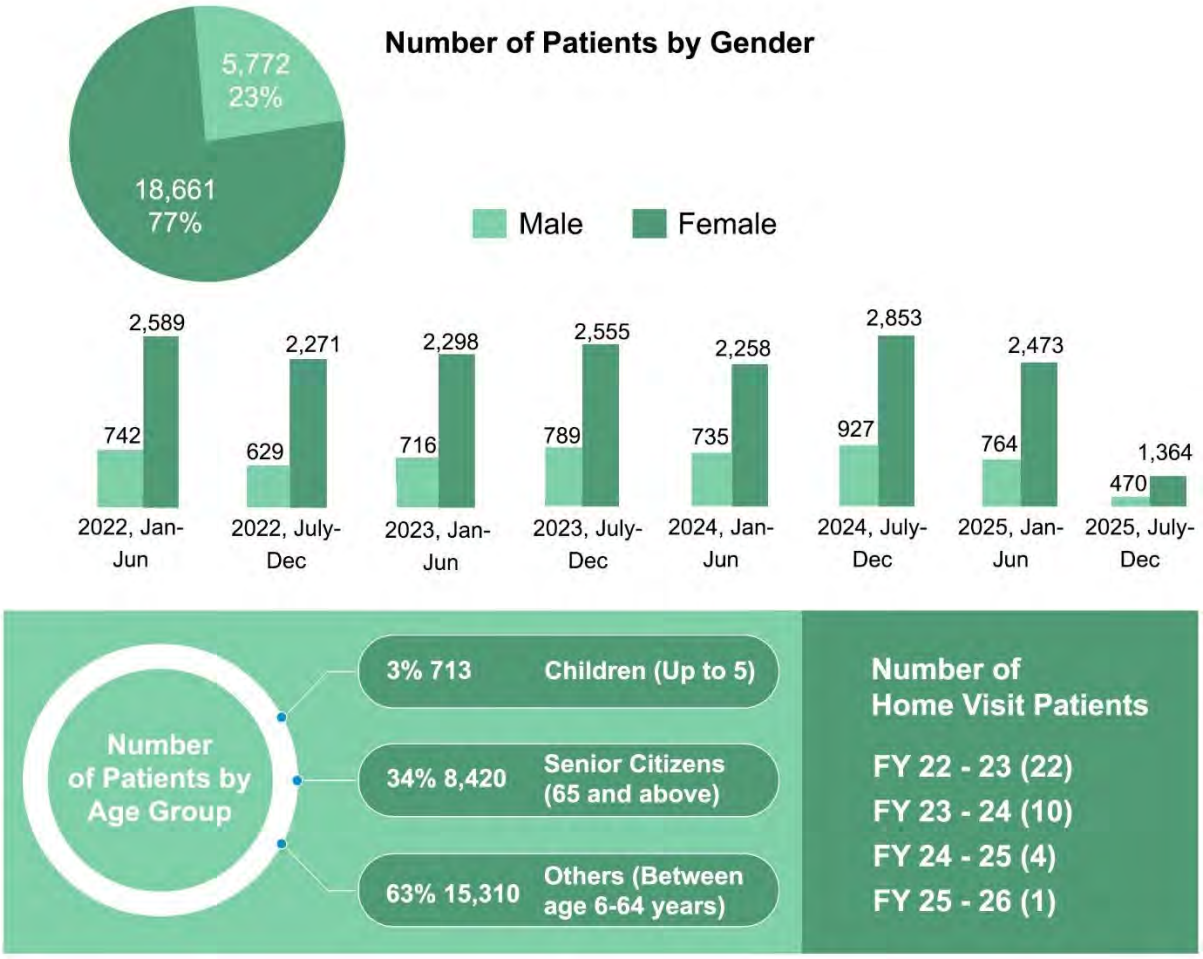


Figure 109: Statistics of Patients' Visit to Mobile Clinics around Mann Field

Figure 110: Organizing Personal Hygiene and Skin Health Awareness Program for Students and Teachers at Lay Eain Tan School

Figure 111: Organizing Personal Hygiene and Skin Health Awareness Program for Students and Teachers at Kyar Kan School

Figure 112: Organizing Health Talk on Tuberculosis Prevention at Auk Kyaung Pagoda

10.6.6 Community-led Waste Management Program

MPRL E&P launched a community-led waste management initiative in Mann Field in the Fiscal Year 2019-2020 with a three-wheeled cargo bike, later upgraded in the Fiscal Year 2020-2021 to a larger vehicle to serve more villages. The CSR Program continues to operate with community participation, focusing on sustainability, regular waste collection, and raising awareness for proper waste management and sustainable development. Between April 2025 and September 2025, MPRL E&P's CSR Program continued strengthening environmental stewardship in Mann Field Communities through integrated waste management initiatives, awareness campaigns, and community-led action.

Throughout the reporting period, the CSR Team monitored the regular waste collection service, facilitating coordination between the service provider and local communities to ensure its effective operation. During the monsoon season, when heavy rains rendered the Minbu dumpsite road inaccessible for the regular vehicle, a rented FAW truck was arranged to maintain uninterrupted waste collection and disposal. By September, as road conditions improved, the service vehicle resumed normal operations.

In parallel, the CSR Program reinforced community participation by supporting 18 cleanup activities of the Trash Hero Minbu Chapter, which engaged 420 participants and collected 495 kilograms of trash across Mann Field villages. The CSR Team also supplied essential equipment and refreshments to sustain volunteer efforts. As part of the Trash Hero Cleanup Challenge Program, participant commitment was recognized through milestone awards—173 volunteers received T-shirts for 10 cleanup sessions, 69 received caps for 20 sessions, and 18 were awarded raincoats for achieving 30 sessions.

To complement sustainable waste management, targeted awareness campaigns were organized. In June 2025, int the celebration of World Environment Day 2025, the CSR Program hosted a two-day campaign under the theme 'Ending Plastic Pollution Globally.' Held at Mann Kyoe Dhamayone, Auk Kyaung Pagoda, and Aye Mya Dhamayone, the events reached 214 participants, including Trash Hero Minbu members, youth, summer program trainees, community volunteers, and CSR Team members. Activities combined educational talks, small-group discussions, interactive quizzes, and creative recycling workshops, inspiring participants to reduce single-use plastic and adopt sustainable practices.

In July 2025, designated as Tree Planting Month, the CSR Team held 'Learn about Trees' sessions followed by tree planting activities at Auk Kyaung School and Mann Kyoe Monastery, providing students and volunteers with hands-on experience in environmental conservation. The same month also marked the launch of a household-

level compost station pilot project in Mann Kyoe and Nan U Villages. This initiative aimed to promote sustainable waste management by reducing reliance on landfills and creating compost for household gardening.

The composting initiative was scaled up in August 2025, engaging 50 households in each village. Demonstration sessions drew 48 participants in Mann Kyoe and 37 in Nan U, including Trash Hero Minbu volunteers, and provided practical training on organic waste conversion. These efforts established the foundation for long-term sustainable practices at the community level.

In September 2025, MPRL E&P's CSR Program commemorated World Cleanup Day 205 with the theme 'Tackling Textile and Fashion Waste.' The event, hosted at Auk Kyaung Pagoda, gathered 170 participants who explored the environmental impacts of textile waste and learned practical solutions. Interactive activities encouraged participants to repurpose discarded textiles into usable items such as scrunchies, bows, and fabric art, highlighting creative ways to reduce waste. The event strengthened awareness of fashion waste challenges while fostering community collaboration for sustainability.

Figure 113: Monitoring Community-led Waste Management Program in Mann Field

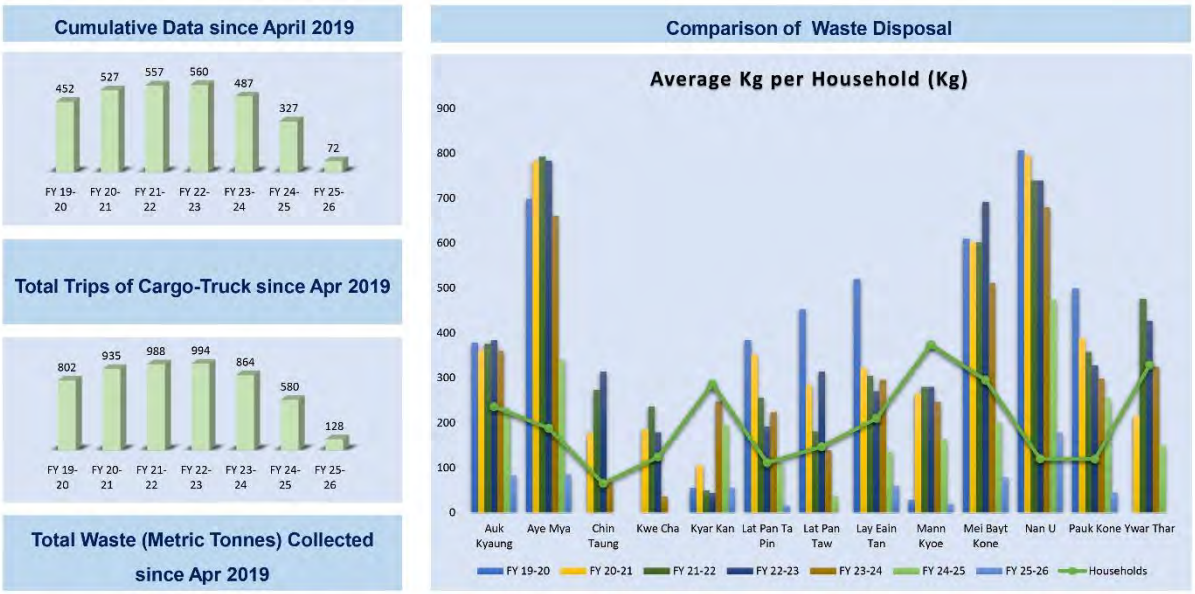


Figure 114: Comparison of Waste Disposal (Quarterly)

Figure 115: Organizing Trash Hero Minbu's Cleanup Activities in Mann Field

Figure 116: Conducting Trash Hero Cleanup Challenge Program in Mann Field

Figure 117: Organizing World Environment Day 2025 Campaign at Mann Kyoe Dhamayone, Auk Kyaung Pagoda, and Aye Mya Dhamayone

Figure 118: Organizing Knowledge Sharing on 'Learn about Trees' Sessions and Tree Planting Activities at Auk Kyaung School and Mann Kyoe Monastery

Figure 119: Introducing Household-Level Community-Managed Compost Station Pilot Project at Mann Kyoe and Nan U Villages

Figure 120: Conducting Household-Level Community-Managed Compost Station Pilot Project at Mann Kyoe Village

Figure 121: Conducting Household-Level Community-Managed Compost Station Pilot Project at Nan U Village

Figure 122: Organizing World Cleanup Day 2025 Celebration in Mann Field Communities

Case Study

Learn About Trees: Growing Together

In celebration of World Tree Planting Day in July, the CSR Team organized the 'Learn About Trees' knowledge-sharing and tree-planting activities at Auk Kyaung School and Mann Kyoe Monastery, engaging 99 participants. The initiative aimed to raise awareness among students and community members about the ecological importance of trees while fostering a sense of responsibility for environmental protection.

The program combined an interactive knowledge-sharing session with hands-on tree-planting activities. During the session, participants learned about the role of trees in supporting biodiversity, improving air quality, and mitigating climate change. This was followed by tree-planting activities in school compound and monastery ground, where students, teachers, and community volunteers worked together to cultivate a greener environment. The combination of knowledge and practice ensured that participants not only understood the concepts but also actively contributed to environmental action.

Engaging the community is a cornerstone of effective and sustainable environmental management. By involving local communities in such initiatives, both government and corporate entities can enhance the reach, impact, and sustainability of their efforts. The "Learn About Trees" activities not only contributed to the greening of community spaces but also strengthened environmental consciousness among participants.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MINBU

Communities play a critical role in ensuring the effectiveness and longevity of environmental initiatives. By leveraging local knowledge, actively participating in activities, and building partnerships, community members help sustain environmental efforts. Their engagement in educational programs enhances understanding of ecological issues, strengthens capacity for responsible action, and fosters a culture of environmental stewardship that extends beyond individual initiatives.

Aligned with MPRL E&P CSR Program's environmental stewardship framework, the initiative reflects the company's commitment to regulatory compliance, a culture of sustainability, and proactive environmental management, demonstrating its role as a responsible corporate citizen.

10.6.7 Operational Grievance Mechanism

MPRL E&P values transparency, community engagement, and responsive communication with host communities. The Operational Grievance Mechanism (OGM) in Mann Field, co-designed with local communities and the Myanma Oil and Gas Enterprise (MOGE), provides a structured platform for two-way communication, helping build trust, strengthen partnerships, and maintain the company's social license to operate. Between April 2025 and September 2025, the CSR Team received and resolved three OGM cases. Since the establishment of the OGM in September 2014, 190 cases have been reported, all of which have been resolved to the satisfaction of the complainants.

- On 04 April 2025, U Tin Thaung from Mei Bayt Kone Village reported an issue of water overflow from Well #25, which was flooding his farmland. He requested an inspection and necessary repairs. The case was initially reported by the Community Volunteer to CSRA-01, who then notified MPRL E&P's Field Operations Team for further action. That same day, CSR Staff and Field Operations Team conducted an on-site inspection. The excess water on the complainant's farmland was drained, and the identified leakage was promptly repaired. The complainant expressed satisfaction with both the resolution process and the outcome.

- On 14 May 2025, Daw Kyi Aye from Mei Bayt Kone Village submitted an OGM case concerning an unused pipeline from Well #364 located on her farmland, which was hindering cultivation activities. She requested an inspection and removal of the pipeline. The case was reported by the Community Volunteer to CSRA-02, who then notified MPRL E&P's Field Operations Team for further inspection and action. Following an on-site inspection, the team removed the pipeline, and the case was officially closed on 15 May 2025. The complainant expressed satisfaction with both the process and the outcome.

- On 20 July 2025, U Tin Aung San, a resident of Kyar Kan Village, reported an OGM case concerning a pipeline from Well #1318 that he believed was unused and obstructing cultivation on his farmland. He requested an inspection and proposed consolidating the seven pipeline segments into one area. The Community Volunteer promptly reported the case to CSRA-01, which then referred the matter to MPRL E&P's Field Operations Team. Following an on-site inspection, the Field Operations Team verified that the pipelines are currently in use. This finding was clearly communicated to the complainant. The case was closed on 21 July 2025. The complainant was satisfied with the process and outcome.

Figure 123: Addressing OGM Case in Mei Bayt Kone Village

Figure 124: Addressing Second OGM Case in Mei Bayt Kone Village

Figure 125: Addressing OGM Case in Kyar Kan Village

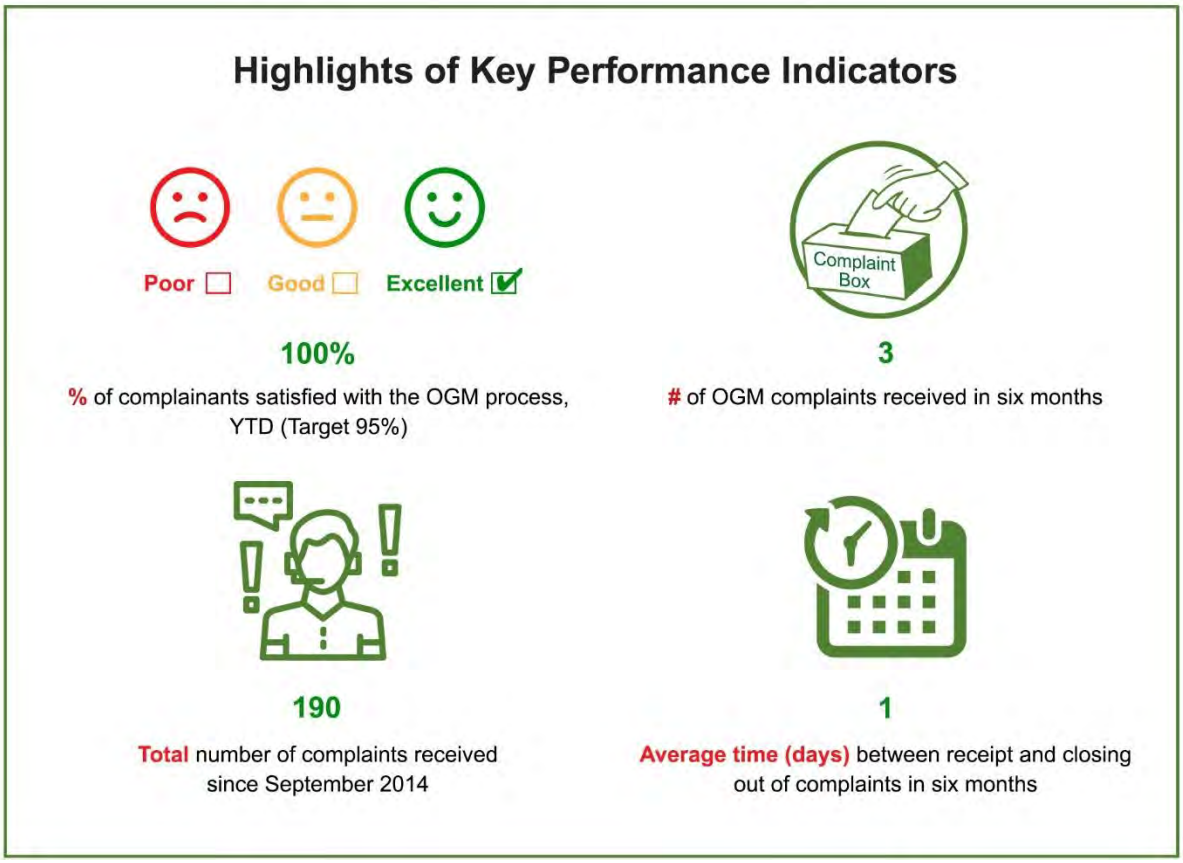

Figure 126: Key Performance Indicators of OGM in Mann Field

Figure 127: Received and Closed Cases, by Quarter, 2014-to-date

10.6.8 Stakeholder Engagement and Information Disclosure

At MPRL E&P, stakeholder engagement and transparent information disclosure remain central to our commitment to human rights, accountability, and building trust with host communities and government counterparts. From April 2025 to September 2025, the CSR Team actively engaged with stakeholders at community, local, and regional levels, ensuring two-way communication that strengthens collaboration, supports informed decision-making, and sustains a strong social license to operate.

In April 2025, the CSR Team convened a series of meetings with local stakeholders to plan upcoming social investment initiatives, while also maintaining regular reporting to the Mann General Manager through bi-weekly and monthly activity reports. To enhance communication and outreach, Insight! and Doh Mann Myay newsletters, along with quarterly CSR progress reports, were distributed to the Magway Regional Government and community stakeholders.

In May 2025, similar meetings were conducted to review and align on social investment priorities. On 29 May 2025, the Environmental Conservation Department (ECD - Magway) visited Mann Field, during which the CSR Team provided updates on social performance management, facilitated site inspections of the Mobile Clinic in Lay Eain Tan Village and the solar-powered water supply project in Kyar Kan Village, and coordinated discussions with village administrators.

In June 2025, the CSR Team hosted the second biannual CSR progress review meeting for the Fiscal Year 2024-2025 with MOGE officials in Nay Pyi Taw, reinforcing collaboration on social performance management. Locally, meetings were held with Community Volunteers, Seed Bank Committees, and OELP groups, as well as for the solar-powered water pumping project. During the month, the CSR & Communications Department published Insight! Newsletter (Issue-43), Doh Mann Myay Newsletter (Issue-17), and Community Grievance Mechanism Reports for the first quarter of the Fiscal Year 2025-2026 in both English and Myanmar.

In July 2025, engagement with community stakeholders continued through the monthly volunteer meeting, support for Seed Bank activities, and coordination on infrastructure projects. The CSR Team also distributed Doh Mann Myay Newsletter (Issue-16) and shared the Ministry of Energy's Ruby Jubilee magazine with three community centers to broaden access to sectoral information. In this reporting month, the CSR Team also submitted the Communication on Progress (CoP) 2025 to the United Nations Global Compact (UNGC) and released on MPRL E&P's website.

In August 2025, the CSR Team organized further meetings with community leaders and volunteers, including the monthly volunteer meeting and discussions on infrastructure project planning. Regular submissions of bi-weekly and monthly CSR

activity reports continued, along with the distribution of Insight! Newsletter, Doh Mann Myay Newsletter, and the Quarterly CSR Progress Report to government and community stakeholders.

In September 2025, the CSR Team continued to engage with stakeholders through monthly volunteer meeting and other consultations to provide program updates, and address community concerns. The CSR Team also worked closely with the MOGE CSR Coordinator on a scholarship request submitted by Kyee Pin Kan Village Administration. In this reporting month, the CSR & Communications Department published Insight! Newsletter (Issue-44), Doh Mann Myay Newsletter (Issue-18), and Community Grievance Mechanism Reports for the second quarter of the Fiscal Year 2025-2026 in both English and Myanmar, ensuring wide accessibility of information.

Figure 128: Engaging with Village Development Committees for Discussions on Social Investment Projects in Mann Field Communities

Figure 129: Organizing the Second Biannual CSR Progress Review Meeting for the Fiscal Year 2024-2025 with MOGE in Nay Pyi Taw

Figure 130: Conducting Monthly Community Volunteer Meeting and Knowledge Enhancement Session on Community Needs Assessment

Figure 131: Providing Social Management Progress Updates to ECD Officials

Figure 132: Distributing the Ministry of Energy's Ruby Jubilee Magazines to Three Community Centers in Mann Field

Figure 133: Distributing Insight! and Doh Mann Myay Newsletters to Stakeholders

Figure 134: Publishing and Distributing Insight! Newsletters (Issue-43) and (Issue-44)

Figure 135: Publishing and Distributing Doh Mann Myay Newsletters (Issue-17) and (Issue-18)

10.6.9 MOGE Employee-Centered CSR Program

MPRL E&P launched the MOGE Employee-Centered CSR Program in the Fiscal Year 2024–2025 as part of our commitment to responsible investment and sustainable community development. This initiative goes beyond contractual obligations, focusing on enhancing the well-being of MOGE employees and their families through educational support, medical assistance, school infrastructure improvements, and vocational training. At the same time, the program contributes to the wider community by supporting cultural and religious events with donations of food, supplies, and other forms of assistance. By prioritizing the needs of MOGE employees and their families, this employee-centered approach strengthens social cohesion and fosters lasting community relationships.

From April to September 2025, MPRL E&P continued to implement a series of meaningful initiatives under the MOGE Employee-Centered CSR Program. In April 2025, the company contributed MMK 650,000 to support the Pahtan donation at Mann Dhamayone. In the same month, MPRL E&P also provided MMK 500,000 to support a golf tournament jointly organized by Mann Oil Field and Htauk Sharpin–Htan Kaing–Yaynan Ma Oil Field of MOGE.

In May 2025, a further contribution of MMK 200,000 was made to support the Waso robe donation organized by the Minbu District General Administration Department through MOGE (Mann Field). Later, in August 2025, MPRL E&P contributed MMK 1,900,000 to support the Sabbath day meal donation at Mann Field Dhamayone, which provided assistance to guests and worshippers.

Additionally, under the scholarship initiative, MPRL E&P supported the son of a Mann MOGE employee to pursue vocational training at the No.5 ITC (Magway). Enrolled in Batch-13 in May 2025, he received direct assistance through the MOGE Employee-Centered CSR Program, which covered his registration fee, monthly stipend, and meal expenses. Between May 2025 and September 2025, MPRL E&P contributed a total of MMK 896,000 toward his scholarship, reflecting the company's commitment to advancing educational opportunities for MOGE families.

Figure 136: Offering Sabbath Day Meal Donation at Mann Field Dhamayone

Case Study

MPRL E&P Extends CSR Support for MOGE Employees in FY 2025-2026

MPRL E&P has continued to extend dedicated support to employees of the Myanma Oil & Gas Enterprise (MOGE) in Mann Field through its MOGE Employee-Centered CSR Program. Beginning in Fiscal Year 2024-2025, the company established a dedicated CSR budget for employee-centered initiatives, with contributions sustained into Fiscal Year 2025-2026 starting in April 2025.

During the second quarter of FY 2025-2026, MPRL E&P made financial contributions to support traditional and religious activities in Mann Field Communities. This included a donation of MMK 200,000 towards the Waso Robe Offering Ceremony organized by the Minbu District General Administration Department, and MMK 1,900,000 to support the Sabbath day meal donation program during Buddhist Lent at the Mann Field Dhamayone.

Further strengthening its commitment to employee welfare, MPRL E&P has also provided educational support. Since May 2025, the company has been granting a scholarship to one student admitted to the one-year Industrial Skills Training Program at No.5 Industrial Training Center (Magway), who is also a family member of a MOGE employee. A total of MMK 896,000 was provided to cover the student's expenses from May to September 2025.

Through its MOGE Employee-Centered CSR Program, MPRL E&P reaffirms its commitment to supporting MOGE employees and their families, promoting community well-being and long-term capacity development.

11. Conclusion

The eleventh Environmental Monitoring Report for the Mann Field EOR Project has been successfully completed, documenting field activities and self-environmental monitoring conducted over the six-month period from April 2025 to September 2025.

During this period, comprehensive self-environmental monitoring was carried out, covering air and noise quality at Z3AQN and Z4AQN, soil quality at Z3S1, Z3S2, Z4S1, and Z4S2, and water quality at Z3SW1, Z3SW2, Z3GW1, Z3GW2, Z4SW1, Z4SW2, and Z4GW2 within designated assessment areas. For baseline monitoring locations that were temporarily inaccessible, we plan to resume air, noise, soil, surface water, and groundwater quality assessments when conditions improve.

During our operations at Mann Field, we faced a range of opportunities and challenges. Enhanced security measures limited activities to daytime hours, increasing operational risks. Key concerns included oil reserve depletion, disruptions caused by pilfering, and logistical difficulties. Despite these obstacles, our commitment to environmental responsibility remained unwavering.

We closely monitored environmental impacts, actively engaged in Corporate Social Responsibility (CSR) and Health, Safety and Environment (HSE) initiatives, and nurtured a culture aligned with our organizational values. Our steadfast commitment to meeting Environmental Compliance Certificate (ECC) obligations reflects our dedication to regulatory compliance, goal achievement and continuous improvement.

12. Annex

Annex – 1 Laboratory Results

Annex – 1 Laboratory Results

Analysis Report

Ministry of Natural Resources and Environmental Conservation

Environmental Conservation Department

Magway Region

Customer Name : MPRL E & P Pte Ltd.

Sample Name : Z3AQN (Air Quality Analysis)

Sampling Date : 22-7-2025 to 23-7-2025 (24 Hours)

Reporting Date : 18-8-2025

Equipment Name : Haz-Scanner (920246) USA

No.	Parameter	Unit	Result	National Environmental Quality (Emission) Guidelines အဝိုဒ်(၁.၁)	Remark
1	Carbon Monoxide (CO)	ppm	0.54221	-	
2	Carbon Dioxide (CO_2)	ppm	1568.93	-	
3	Hydrogen Sufide(H_2S)	ppb	34.7058	-	48.241 µg/m³
4	Nitrogen Oxide (NO)	µg/ m³	17.591	200	
5	Nitrogen Dioxide (NO_2)	ppb	47.6159	-	89.58 µg/m³
6	Particulate Matter (PM_{10})	µg/ m³	7.60207	50	
7	Relative Humidity (RH)	%	61.2906	-	
8	Sulphur Dioxide (SO_2)	µg/ m³	1.713	20	

This report is only valid for the sample received.

Not a certificate of conformance
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Analysis By

Signature: ----------

Name: ----------(မြတ်နိုးဝေ)

Designation: လက်ထောက်ညွှန်ကြားရေးမှူး
ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန

Approved By

Signature: ----------

Name: ----------(ဇော်မိုး)

Designation: ညွှန်ကြားရေးမှူး
ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန

Analysis Report

Ministry of Natural Resources and Environmental Conservation

Environmental Conservation Department

Magway Region

Customer Name : MPRL E & P Pte Ltd.

Sample Name : Z3AQN (20°13'21.73"N၊ 94°51'19.72"E)(Noise)

Analytical Date : 22-7-2025

Reporting Date : 18-8-2025

Equipment Name : Sound Meter(EXTECH-SDL600)

Receptor	One Hour LAeq(dBA)[a]	
	Day Time 07:00- 22:00 (10:00- 22:00 for Public holidays)	Night Time 22:00- 07:00 (22:00-10:00 for Public holidays)
Residential	55	45
Industrial	70	70
Average Test Result	37.3	33.85

This report is only valid for the sample received.

Not a certificate of conformance
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Analysis By

Signature: ----------

Name: ---------- (မြတ်နိုး၀ေ)

Designation: ----------

လက်ထောက်ညွှန်ကြားရေးမှူး
ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန

Approved By

Signature: ----------

Name: ---------- (ဇော်မိုး)

Designation: ----------

ညွှန်ကြားရေးမှူး
ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန

Analysis Report

Ministry of Natural Resources and Environmental Conservation

Environmental Conservation Department

Magway Region

Customer Name : MPRL E & P Pte Ltd.

Sample Name : Z4AQN (Air Quality Analysis)

Sampling Date : 23-7-2025 to 24-7-2025 (24 Hours)

Reporting Date : 18-8-2025

Equipment Name : Haz-Scanner (920246) USA

No.	Parameter	Unit	Result	National Environmental Quality (Emission) Guidelines အဝိုဒ်(၁.၁)	Remark
1	Carbon Monoxide (CO)	ppm	0.054567	-	
2	Carbon Dioxide (CO_2)	ppm	837.567	-	
3	Hydrogen Sufide(H_2S)	ppb	0	-	
4	Nitrogen Oxide (NO)	µg/ m^3	35.460	200	
5	Nitrogen Dioxide (NO_2)	ppb	6.88235	-	12.95 µg/m^3
6	Particulate Matter (PM_{10})	µg/ m^3	9.61245	50	
7	Relative Humidity (RH)	%	62.8754	-	
8	Sulphur Dioxide (SO_2)	µg/ m^3	2.211	20	

This report is only valid for the sample received.

Not a certificate of conformance
စံချိန်စံညွှန်းကိုက်ညီကြောင်း ထောက်ခံချက်မဟုတ်ပါ။

Analysis By

Signature: ----------

Name: ---------- (ဖြိုးတိုးနိုးဝေ)

Designation: လက်ထောက်ညွှန်ကြားရေးမှူး
ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန

Approved By

Signature: ----------

Name: ---------- (ဇော်မိုး)

Designation: ---------- ညွှန်ကြားရေးမှူး
ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန

Analysis Report

Ministry of Natural Resources and Environmental Conservation

Environmental Conservation Department

Magway Region

Customer Name : MPRL E & P Pte Ltd.

Sample Name : Z4AQN (20°13'21.73"N၊ 94°51'19.72"E)(Noise)

Analytical Date : 23-7-2025

Reporting Date : 18-8-2025

Equipment Name : Sound Meter(EXTECH-SDL600)

Receptor	One Hour LAeq(dBA)[a]	
	Day Time 07:00- 22:00 (10:00- 22:00 for Public holidays)	Night Time 22:00- 07:00 (22:00-10:00 for Public holidays)
Residential	55	45
Industrial	70	70
Average Test Result	48.85	39.3

This report is only valid for the sample received.

Not a certificate of conformance
စံချိန်စံညွှန်းကိုက်ညီကြောင်း ထောက်ခံချက်မဟုတ်ပါ။

Analysis By

Signature: ----------

Name: ---------- (မြတ်နိုးဝေ)

Designation: လက်ထောက်ညွှန်ကြားရေးမှူး
ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန

Approved By

Signature: ----------

Name: ---------- (ဇော်မိုး)

Designation: ညွှန်ကြားရေးမှူး
ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန

Analysis Report

Ministry of Natural Resources and Environmental Conservation

Environmental Conservation Department

Magway Region

Customer Name : MPRL E & P Pte Ltd.

Sample Name : Z3S1 (Soil Sample)

Sampling Date : 24-7-2025

Receiving Date : 28-7-2025

Analytical Date : 4-8-2025 to 8-8-2025

Reporting Date : 18-8-2025

Equipment Name : Arsenic Test Kit, Palintest (SKW500), AAS (Atomic Absorbtion Spectrophotometer)

No.	Parameter	Unit	Result	Remark
1	pH	-	6.56	
2	Arsenic	mg/kg	0.009	
3	Lead(Pb)	mg/kg	19.28	
4	Cadmium (Cd)	mg/kg	3.219	
5	Copper (Cu)	mg/kg	10.47	
6	Zinc (Zn)	mg/kg	53.38	
7	Manganese (Mn)	mg/kg	138.7	
8	Iron (Fe)	mg/kg	798.6	

This report is only valid for the sample received.

Not a certificate of conformance
စံချိန်စံညွှန်းကိုက်ညီကြောင်း ထောက်ခံချက်မဟုတ်ပါ။

Analysis By

Signature: ----------

Name: ---------- (မြတ်နိုးဝေ)

Designation: ---------- လက်ထောက်ညွှန်ကြားရေးမှူး၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန

Approved By

Signature: ----------

Name: ---------- (ဇော်မိုး)

Designation: ---------- ညွှန်ကြားရေးမှူး၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန

Analysis Report

Ministry of Natural Resources and Environmental Conservation

Environmental Conservation Department

Magway Region

Customer Name : MPRL E & P Pte Ltd.

Sample Name : Z3S2 (Soil Sample)

Sampling Date : 24-7-2025

Receiving Date : 28-7-2025

Analytical Date : 4-8-2025 to 8-8-2025

Reporting Date : 18-8-2025

Equipment Name : Arsenic Test Kit, Palintest (SKW500), AAS (Atomic Absorbtion Spectrophotometer),

No.	Parameter	Unit	Result	Remark
1	PH	-	6.44	
2	Arsenic	mg/kg	0.017	
3	Lead(Pb)	mg/kg	13.59	
4	Cadmium (Cd)	mg/kg	2.766	
5	Copper (Cu)	mg/kg	9.259	
6	Zinc (Zn)	mg/kg	26.28	
7	Manganese (Mn)	mg/kg	128.3	
8	Iron (Fe)	mg/kg	793.7	

This report is only valid for the sample received.

Not a certificate of conformance
စံချိန်စံညွှန်းကိုက်ညီကြောင်း ထောက်ခံချက်မဟုတ်ပါ။

Analysis By

Signature: ----------

Name: ---------- (မြတ်နိုးဝေ)

Designation: ---------- လက်ထောက်ညွှန်ကြားရေးမှူး ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန

Approved By

Signature: ----------

Name: ---------- (ဇော်မိုး)

Designation: ---------- ညွှန်ကြားရေးမှူး မဏ္ဍိုင်ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန

Analysis Report

Ministry of Natural Resources and Environmental Conservation

Environmental Conservation Department

Magway Region

Customer Name : MPRL E & P Pte Ltd.

Sample Name : Z4S1 (Soil Sample)

Sampling Date : 24-8-2025

Receiving Date : 28-8-2025

Analytical Date : 4-8-2025 to 8-8-2025

Reporting Date : 18-8-2025

Equipment Name : Arsenic Test Kit, Palintest (SKW500), AAS (Atomic Absorbtion Spectrophotometer),

No.	Parameter	Unit	Result	Remark
1	PH	-	7.02	
2	Arsenic	mg/kg	0	
3	Lead(Pb)	mg/kg	17.61	
4	Cadmium (Cd)	mg/kg	2.825	
5	Copper (Cu)	mg/kg	23.56	
6	Zinc (Zn)	mg/kg	45.66	
7	Manganese (Mn)	mg/kg	193	
8	Iron (Fe)	mg/kg	819.5	

This report is only valid for the sample received.

Not a certificate of conformance
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Analysis By

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Name: ---------- (မြတ်နိုးဝေ)

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ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန

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Signature: ----------

Name: ---------- (ဇော်မိုး)

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ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန

Analysis Report

Ministry of Natural Resources and Environmental Conservation

Environmental Conservation Department

Magway Region

Customer Name : MPRL E & P Pte Ltd.

Sample Name : Z4S2 (Soil Sample)

Sampling Date : 24-7-2025

Receiving Date : 28-7-2025

Analytical Date : 4-8-2025 to 8-8-2025

Reporting Date : 18-8-2025

Equipment Name : Arsenic Test Kit, Palintest (SKW500), AAS (Atomic Absorbtion Spectrophotometer)

No.	Parameter	Unit	Result	Remark
1	pH	-	7.36	
2	Arsenic	mg/kg	0.004	
3	Lead(Pb)	mg/kg	13.86	
4	Cadmium (Cd)	mg/kg	2.713	
5	Copper (Cu)	mg/kg	14.43	
6	Zinc (Zn)	mg/kg	98.49	
7	Manganese (Mn)	mg/kg	197.4	
8	Iron (Fe)	mg/kg	812.7	

This report is only valid for the sample received.

Not a certificate of conformance
စံချိန်စံညွှန်းကိုက်ညီကြောင်း ထောက်ခံချက်မဟုတ်ပါ။

Analysis By

Signature: ----------

Name: ---------- (မြတ်နိုးဝေ)

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ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန

Approved By

Signature: ---------- (ဇော်မိုး)

Name: ----------

Designation: ညွှန်ကြားရေးမှူး
ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန

ALARM Ecological Laboratory

Water Testing Result Report

Report Number: EL-WR-25-04978 **Date: August 14, 2025**

Client Information

Client Name	:	MPRL E & P Pte Ltd
Organization	:	-
Client ID	:	-
Registration Date & Time	:	24.7.2025
Contact	:	09-5177819
Email	:	han.m.aung@mprlexp.com
Testing Purpose	:	For Monitoring

Sample Information

Sample ID	:	13268
Sample Name	:	Z3SW1
Sample Type / Source	:	Surface Water
Sampling Date & Time	:	23.7.2025; 9:55 AM
Sample Location	:	Minbu Township
Latitude	:	-
Longitude	:	-

Testing Results

This laboratory analysis report is based solely on the sample submitted by the client unless client took our sampling service.
This report shall not be reproduced except in full, without written approval of the laboratory

Sr.	Quality Parameters	Results	Units	Drinking Standards	Remarks
1	Total Phosphorous[3]	0.85	mg/L	-	-
2	Boron[3]	0.64	mg/L	≤2.4 [c]	Normal
3	Fluoride[3]	< 0.05	mg/L	≤1.5 [c]	Normal
4	Oil & Grease [9]	6	mg/L	-	-
5	Total Nitrogen[3]	15.6	mg/L	-	-

"ND" = Not Detected "LOD" = Lower limit of detection " - " = No Reference Standard

Tested by	Checked by	Approved by
Daw May Myat Khine Lab. Technician II Ecological Laboratory ALARM	Daw Lin Myat Myat Aung Lab. Technician I Ecological Laboratory ALARM	Dr. Aye Aye Win Laboratory In-Charge Ecological Laboratory (ALARM)

No.121, Corner of Shu Khin Thar Street & 7 Street, (3) Block, South Oakkalapa Township,Yangon.
Tel: 09-407496078, Email; aelab.2022@gmail.com

ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd), Consultant (Y.C.D.C), LWSE 001.
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

ISO 9001:2015 Cert. No.6M8283

W0725 574

WATER QUALITY TEST RESULTS FORM

Client	MPRL E & P
Nature of Water	Surface Water
Location	Z3SW1, Minbu Township.
Date and Time of collection	23.7.2025 (10:25 AM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	25.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis			WHO Drinking Water Guideline (Geneva - 1993)
pH	8.4		6.5 - 8.5
Colour (True)	300	TCU	15 TCU
Turbidity	580	NTU	5 NTU
Conductivity	242	micro S/cm	
Total Hardness	94	mg/l as $CaCO_3$	500 mg/l as $CaCO_3$
Calcium Hardness	-	mg/l as $CaCO_3$	
Magnesium Hardness	-	mg/l as $CaCO_3$	
Total Alkalinity	106	mg/l as $CaCO_3$	
Phenolphthalein Alkalinity	-	mg/l as $CaCO_3$	
Carbonate ($CaCO_3$)	-	mg/l as $CaCO_3$	
Bicarbonate (HCO_3)	-	mg/l as $CaCO_3$	
Iron	-	mg/l	0.3 mg/l
Chloride (as CL)	-	mg/l	250 mg/l
Sodium Chloride (as NaCL)	-	mg/l	
Sulphate (as SO_4)	-	mg/l	500 mg/l
Total Solids	-	mg/l	1500 mg/l
Total Suspended Solids	446	mg/l	
Total Dissolved Solids	-	mg/l	1000 mg/l
Manganese	-	mg/l	0.05 mg/l
Phosphate	-	mg/l	
Phenolphthalein Acidity	-	mg/l	
Methyl Orange Acidity	-	mg/l	
Salinity	-	ppt	

Remark: This certificate is issued only for the receipt of the test sample.

29/7

ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd). Consultant (Y.C.D.C), LWSE 001
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

ISO 9001:2015 Cert. No.688283

WTL-RE-001
Issue Date - 01-12-2012
Effective Date - 01-12-2012
Issue No - 1.0/Page 2 of 2

W0725 574

WATER QUALITY TEST RESULTS FORM

Client	MPRL E & P
Nature of Water	Surface Water
Location	Z3SW1, Minbu Township.
Date and Time of collection	23.7.2025 (10:25 AM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	25.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis			WHO Drinking Water Guideline (Geneva - 1993)
Temperature (°C)	25.0	°C	
Fluoride (F)	-	mg/l	1.5 mg/l
Lead (as Pb)	-	mg/l	0.01 mg/l
Arsenic (As)	Nil	mg/l	0.01 mg/l
Nitrate ($N.NO_3$)	-	mg/l	50 mg/l
Chlorine (Residual)	-	mg/l	
Ammonia Nitrogen (NH_3)	-	mg/l	
Ammonium Nitrogen (NH_4)	-	mg/l	
Dissolved Oxygen (DO)	6.2	mg/l	
Chemical Oxygen Demand (COD)	96	mg/l	
Biochemical Oxygen Demand (BOD) (5 days at 20 °C)	-	mg/l	
Cyanide (CN)	-	mg/l	0.07 mg/l
Zinc (Zn)	-	mg/l	3 mg/l
Copper (Cu)	-	mg/l	2 mg/l
Silica (SiO_2)	-	mg/l	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr.Chemist
ISO Tech Laboratory

Approved by
Signature:
Name: Thinzar Theint Theint
B.E (Civil)
Senior Engineer
ISO Tech Laboratory

(a division of WEG Co., Ltd.)
No.18. Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

ALARM Ecological Laboratory

Water Testing Result Report

Report Number: EL-WR-25-04979 **Date: August 14, 2025**

Client Information		Sample Information	
Client Name :	MPRL E & P Pte Ltd	Sample ID :	13269
Organization :	-	Sample Name :	Z3SW2
Client ID :	-	Sample Type / Source :	Surface Water
Registration Date & Time :	24.7.2025	Sampling Date & Time :	23.7.2025; 10:00 AM
Contact :	09-5177819	Sample Location :	Minbu Township
Email :	han.m.aung@mprlexp.com	Latitude :	-
Testing Purpose :	For Monitoring	Longitude :	-

Testing Results

This laboratory analysis report is based solely on the sample submitted by the client unless client took our sampling service.
This report shall not be reproduced except in full, without written approval of the laboratory

Sr.	Quality Parameters	Results	Units	Drinking Standards	Remarks
1	Total Phosphorous[3]	1.42	mg/L	-	-
2	Boron[3]	1.2	mg/L	≤2.4 [c]	Normal
3	Fluoride[3]	< 0.05	mg/L	≤1.5 [c]	Normal
4	Oil & Grease [3]	5	mg/L	-	-
5	Total Nitrogen[3]	8.12	mg/L	-	-

"ND" = Not Detected "LOD" = Lower limit of detection " - " = No Reference Standard

Tested by	Checked by	Approved by
Daw May Myat Khine Lab. Technician II Ecological Laboratory ALARM	Daw Lin Myat Myat Aung Lab. Technician I Ecological Laboratory ALARM	Dr. Aye Aye Win Laboratory In-Charge Ecological Laboratory (ALARM)

No.121, Corner of Shu Khin Thar Street & 7 Street, (3) Block, South Oakkalapa Township, Yangon.
Tel: 09-407496078, Email: aelab.2022@gmail.com

ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd). Consultant (Y.C.D.C), LWSE 001.
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

ISO 9001:2015 Cert. No.688283

WTL-RE-001
Issue Date - 01-12-2012
Effective Date - 01-12-2012
Issue No - 1.0/Page 1 of 2

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WATER QUALITY TEST RESULTS FORM

Client	MPRL E & P
Nature of Water	Surface Water
Location	Z3SW2, Minbu Township.
Date and Time of collection	23.7.2025 (9:55 AM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	25.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis			WHO Drinking Water Guideline (Geneva - 1993)
pH	8.4		6.5 - 8.5
Colour (True)	220	TCU	15 TCU
Turbidity	320	NTU	5 NTU
Conductivity	242	micro S/cm	
Total Hardness	98	mg/l as $CaCO_3$	500 mg/l as $CaCO_3$
Calcium Hardness	-	mg/l as $CaCO_3$	
Magnesium Hardness	-	mg/l as $CaCO_3$	
Total Alkalinity	102	mg/l as $CaCO_3$	
Phenolphthalein Alkalinity	-	mg/l as $CaCO_3$	
Carbonate ($CaCO_3$)	-	mg/l as $CaCO_3$	
Bicarbonate (HCO_3)	-	mg/l as $CaCO_3$	
Iron	-	mg/l	0.3 mg/l
Chloride (as CL)	-	mg/l	250 mg/l
Sodium Chloride (as NaCL)	-	mg/l	
Sulphate (as SO_4)	-	mg/l	500 mg/l
Total Solids	-	mg/l	1500 mg/l
Total Suspended Solids	407	mg/l	
Total Dissolved Solids	-	mg/l	1000 mg/l
Manganese	-	mg/l	0.05 mg/l
Phosphate	-	mg/l	
Phenolphthalein Acidity	-	mg/l	
Methyl Orange Acidity	-	mg/l	
Salinity	-	ppt	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo, B.Sc (Chemistry), Sr.Chemist, ISO Tech Laboratory

Approved by
Signature: 29/7
Name: Thinzar Theint Theint, B.E (Civil), Senior Engineer, ISO Tech Laboratory

(a division of WEG Co., Ltd.)

No.18. Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
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ISO TECH LABORATORY

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Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

W0725 575

WATER QUALITY TEST RESULTS FORM

Client	MPRL E & P
Nature of Water	Surface Water
Location	Z3SW2, Minbu Township.
Date and Time of collection	23.7.2025 (9:55 AM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	25.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis			WHO Drinking Water Guideline (Geneva - 1993)
Temperature (°C)	25.0	°C	
Fluoride (F)	-	mg/l	1.5 mg/l
Lead (as Pb)	-	mg/l	0.01 mg/l
Arsenic (As)	Nil	mg/l	0.01 mg/l
Nitrate ($N.NO_3$)	-	mg/l	50 mg/l
Chlorine (Residual)	-	mg/l	
Ammonia Nitrogen (NH_3)	-	mg/l	
Ammonium Nitrogen (NH_4)	-	mg/l	
Dissolved Oxygen (DO)	6.0	mg/l	
Chemical Oxygen Demand (COD)	64	mg/l	
Biochemical Oxygen Demand (BOD) (5 days at 20 °C)	-	mg/l	
Cyanide (CN)	-	mg/l	0.07 mg/l
Zinc (Zn)	-	mg/l	3 mg/l
Copper (Cu)	-	mg/l	2 mg/l
Silica (SiO_2)	-	mg/l	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr.Chemist
ISO Tech Laboratory

Approved by
Signature: 29/7
Name: Thinzar Theint Theint
B.E (Civil)
Senior Engineer
ISO Tech Laboratory

(a division of WEG Co., Ltd.)
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Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

ALARM Ecological Laboratory

Water Testing Result Report

Report Number: EL-WR-25-04980 **Date: August 14, 2025**

Client Information

Client Name	:	MPRL E & P Pte Ltd
Organization	:	-
Client ID	:	-
Registration Date & Time	:	24.7.2025;
Contact	:	09-5177819
Email	:	han.m.aung@mprlexp.com
Testing Purpose	:	For Monitoring

Sample Information

Sample ID	:	13270
Sample Name	:	Z4SW1
Sample Type / Source	:	Surface Water
Sampling Date & Time	:	23.7.2025; 14:45 PM
Sample Location	:	Minbu Township
Latitude	:	-
Longitude	:	-

Testing Results

This laboratory analysis report is based solely on the sample submitted by the client unless client took our sampling service.
This report shall not be reproduced except in full, without written approval of the laboratory

Sr.	Quality Parameters	Results	Units	Drinking Standards	Remarks
1	Total Phosphorous[3]	1.12	mg/L	-	-
2	Boron[3]	1.5	mg/L	≤2.4 [c]	Normal
3	Fluoride[3]	< 0.05	mg/L	≤1.5 [c]	Normal
4	Oil & Grease [9]	6	mg/L	-	-
5	Total Nitrogen[3]	9.62	mg/L	-	-

"ND" = Not Detected "LOD" = Lower limit of detection " - " = No Reference Standard

Tested by	Checked by	Approved by
Daw May Myat Khine Lab. Technician II Ecological Laboratory ALARM	Daw Lin Myat Myat Aung Lab. Technician I Ecological Laboratory ALARM	Dr. Aye Aye Win Laboratory In-Charge Ecological Laboratory (ALARM)

No.121, Corner of Shu Khin Thar Street & 7 Street, (3) Block, South Oakkalapa Township, Yangon.
Tel: 09-407496078, Email: aelab.2022@gmail.com

ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd). Consultant (Y.C.D.C), LWSE 001.
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

ISO 9001:2015 Cert. No.668283

WTL-RE-001
Issue Date - 01-12-2012
Effective Date - 01-12-2012
Issue No - 1.0/Page 1 of 2

W0725 576

WATER QUALITY TEST RESULTS FORM

Client	MPRL E & P
Nature of Water	Surface Water
Location	Z4SW1, Minbu Township.
Date and Time of collection	23.7.2025 (14:45 PM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	25.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis			WHO Drinking Water Guideline (Geneva - 1993)
pH	8.3		6.5 - 8.5
Colour (True)	280	TCU	15 TCU
Turbidity	460	NTU	5 NTU
Conductivity	146	micro S/cm	
Total Hardness	8	mg/l as $CaCO_3$	500 mg/l as $CaCO_3$
Calcium Hardness	-	mg/l as $CaCO_3$	
Magnesium Hardness	-	mg/l as $CaCO_3$	
Total Alkalinity	64	mg/l as $CaCO_3$	
Phenolphthalein Alkalinity	-	mg/l as $CaCO_3$	
Carbonate ($CaCO_3$)	-	mg/l as $CaCO_3$	
Bicarbonate (HCO_3)	-	mg/l as $CaCO_3$	
Iron	-	mg/l	0.3 mg/l
Chloride (as CL)	-	mg/l	250 mg/l
Sodium Chloride (as NaCL)	-	mg/l	
Sulphate (as SO_4)	-	mg/l	500 mg/l
Total Solids	-	mg/l	1500 mg/l
Total Suspended Solids	560	mg/l	
Total Dissolved Solids	-	mg/l	1000 mg/l
Manganese	-	mg/l	0.05 mg/l
Phosphate	-	mg/l	
Phenolphthalein Acidity	-	mg/l	
Methyl Orange Acidity	-	mg/l	
Salinity	-	ppt	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo, B.Sc (Chemistry), Sr.Chemist

Approved by
Signature:
Name: Thinzar Theint Theint, B.E (Civil), Senior Engineer

(a division of WEG Co., Ltd.) ISO Tech Laboratory

No.18. Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd). Consultant (Y.C.D.C), LWSE 001.
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

ISO 9001:2015 Cert. No.688283

WTL-RE-001
Issue Date - 01-12-2012
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WATER QUALITY TEST RESULTS FORM

Client: MPRL E & P
Nature of Water: Surface Water
Location: Z4SW1, Minbu Township.
Date and Time of collection: 23.7.2025 (14:45 PM)
Date and Time of arrival at Laboratory: 24.7.2025
Date and Time of commencing examination: 25.7.2025
Date and Time of completing: 28.7.2025

Results of Water Analysis			WHO Drinking Water Guideline (Geneva - 1993)
Temperature (°C)	25.0	°C	
Fluoride (F)	-	mg/l	1.5 mg/l
Lead (as Pb)	-	mg/l	0.01 mg/l
Arsenic (As)	Nil	mg/l	0.01 mg/l
Nitrate ($N.NO_3$)	-	mg/l	50 mg/l
Chlorine (Residual)	-	mg/l	
Ammonia Nitrogen (NH_3)	-	mg/l	
Ammonium Nitrogen (NH_4)	-	mg/l	
Dissolved Oxygen (DO)	5.8	mg/l	
Chemical Oxygen Demand (COD)	96	mg/l	
Biochemical Oxygen Demand (BOD) (5 days at 20 °C)	-	mg/l	
Cyanide (CN)	-	mg/l	0.07 mg/l
Zinc (Zn)	-	mg/l	3 mg/l
Copper (Cu)	-	mg/l	2 mg/l
Silica (SiO_2)	-	mg/l	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Saw Hein Oo
B.Sc (Chemistry)
Sr.Chemist
ISO Tech Laboratory

Approved by
Signature:
Name: Thinzar Theint Theint
B.E (Civil)
Senior Engineer
ISO Tech Laboratory

(a division of WEG Co., Ltd.)
No.18. Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

ALARM Ecological Laboratory

Water Testing Result Report

Report Number: EL-WR-25-04981 | **Date: August 14, 2025**

Client Information

Client Name	:	MPRL E & P Pte Ltd
Organization	:	-
Client ID	:	-
Registration Date & Time	:	24.7.2025
Contact	:	09-5177819
Email	:	han.m.aung@mprlexp.com
Testing Purpose	:	For Monitoring

Sample Information

Sample ID	:	13271
Sample Name	:	Z4SW2
Sample Type / Source	:	Surface Water
Sampling Date & Time	:	23.7.2025; 14:50 PM
Sample Location	:	Minbu Township
Latitude	:	-
Longitude	:	-

Testing Results

This laboratory analysis report is based solely on the sample submitted by the client unless client took our sampling service.
This report shall not be reproduced except in full, without written approval of the laboratory

Sr.	Quality Parameters	Results	Units	Drinking Standards	Remarks
1	Total Phosphorous[3]	1.56	mg/L	-	-
2	Boron[3]	1.5	mg/L	≤2.4 [c]	Normal
3	Fluoride[3]	< 0.05	mg/L	≤1.5 [c]	Normal
4	Oil & Grease [9]	7	mg/L	-	-
5	Total Nitrogen[3]	14.65	mg/L	-	-

"ND" = Not Detected | "LOD" = Lower limit of detection | " - " = No Reference Standard

Tested by	Checked by	Approved by
Daw May Myat Khine Lab. Technician II Ecological Laboratory ALARM	Daw Lin Myat Myat Aung Lab. Technician I Ecological Laboratory ALARM	Dr. Aye Aye Win Laboratory In-Charge Ecological Laboratory (ALARM)

No.121, Corner of Shu Khin Thar Street & 7 Street, (3) Block, South Oakkalapa Township, Yangon.
Tel: 09-407496078, Email: aelab.2022@gmail.com

ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd). Consultant (Y.C.D.C), LWSE 001.
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

ISO 9001:2015 Cert. No.688283

WTL-RE-001
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WATER QUALITY TEST RESULTS FORM

Client	MPRL E & P
Nature of Water	Surface Water
Location	Z4SW2, Minbu Township.
Date and Time of collection	23.7.2025 (14:50 PM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	25.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis			WHO Drinking Water Guideline (Geneva - 1993)
pH	8.4		6.5 - 8.5
Colour (True)	300	TCU	15 TCU
Turbidity	490	NTU	5 NTU
Conductivity	162	micro S/cm	
Total Hardness	60	mg/l as $CaCO_3$	500 mg/l as $CaCO_3$
Calcium Hardness	-	mg/l as $CaCO_3$	
Magnesium Hardness	-	mg/l as $CaCO_3$	
Total Alkalinity	70	mg/l as $CaCO_3$	
Phenolphthalein Alkalinity	-	mg/l as $CaCO_3$	
Carbonate ($CaCO_3$)	-	mg/l as $CaCO_3$	
Bicarbonate (HCO_3)	-	mg/l as $CaCO_3$	
Iron	-	mg/l	0.3 mg/l
Chloride (as CL)	-	mg/l	250 mg/l
Sodium Chloride (as NaCL)	-	mg/l	
Sulphate (as SO_4)	-	mg/l	500 mg/l
Total Solids	-	mg/l	1500 mg/l
Total Suspended Solids	536	mg/l	
Total Dissolved Solids	-	mg/l	1000 mg/l
Manganese	-	mg/l	0.05 mg/l
Phosphate	-	mg/l	
Phenolphthalein Acidity	-	mg/l	
Methyl Orange Acidity	-	mg/l	
Salinity	-	ppt	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo, B.Sc (Chemistry), Sr.Chemist, ISO Tech Laboratory

Approved by
Signature:
Name: Thinzar Theint Theint, B.E (Civil), Senior Engineer, ISO Tech Laboratory

(a division of WEG Co., Ltd.)

No.18. Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd). Consultant (Y.C.D.C), LWSE 001.
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

W0725 577

WATER QUALITY TEST RESULTS FORM

Client	MPRL E & P
Nature of Water	Surface Water
Location	Z4SW2, Minbu Township.
Date and Time of collection	23.7.2025 (14:50 PM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	25.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis

			WHO Drinking Water Guideline (Geneva - 1993)
Temperature (°C)	25.0	°C	
Fluoride (F)	-	mg/l	1.5 mg/l
Lead (as Pb)	-	mg/l	0.01 mg/l
Arsenic (As)	Nil	mg/l	0.01 mg/l
Nitrate ($N.NO_3$)	-	mg/l	50 mg/l
Chlorine (Residual)	-	mg/l	
Ammonia Nitrogen (NH_3)	-	mg/l	
Ammonium Nitrogen (NH_4)	-	mg/l	
Dissolved Oxygen (DO)	5.6	mg/l	
Chemical Oxygen Demand (COD)	96	mg/l	
Biochemical Oxygen Demand (BOD) (5 days at 20 °C)	-	mg/l	
Cyanide (CN)	-	mg/l	0.07 mg/l
Zinc (Zn)	-	mg/l	3 mg/l
Copper (Cu)	-	mg/l	2 mg/l
Silica (SiO_2)	-	mg/l	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr.Chemist
ISO Tech Laboratory

Approved by
Signature: 29/7
Name: Thinzar Theint Theint
B.E (Civil)
Senior Engineer
ISO Tech Laboratory

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Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

ALARM Ecological Laboratory

Water Testing Result Report

Report Number: EL-WR-25-04982 **Date: August 14, 2025**

Client Information

Client Name	:	MPRL E & P Pte Ltd
Organization	:	-
Client ID	:	-
Registration Date & Time	:	24.7.2025
Contact	:	09-5177819
Email	:	han.m.aung@mprlexp.com
Testing Purpose	:	For Monitoring

Sample Information

Sample ID	:	13272
Sample Name	:	Z3GW1
Sample Type / Source	:	Ground Water
Sampling Date & Time	:	23.7.2025; 9:45 AM
Sample Location	:	Minbu Township
Latitude	:	-
Longitude	:	-

Testing Results

This laboratory analysis report is based solely on the sample submitted by the client unless client took our sampling service.
This report shall not be reproduced except in full, without written approval of the laboratory

Sr.	Quality Parameters	Results	Units	Drinking Standards	Remarks
1	Total Phosphorous[3]	0.61	mg/L	-	-
2	Boron[3]	0.32	mg/L	≤2.4 [c]	Normal
3	Fluoride[3]	< 0.05	mg/L	≤1.5 [c]	Normal
4	Oil & Grease [9]	3	mg/L	-	-
5	Total Nitrogen[3]	1.61	mg/L	-	-

"ND" = Not Detected "LOD" = Lower limit of detection " - " = No Reference Standard

Tested by	Checked by	Approved by
Daw May Myat Khine Lab. Technician II Ecological Laboratory ALARM	Daw Lin Myat Myat Aung Lab. Technician I Ecological Laboratory ALARM	Dr. Aye Aye Win Laboratory In-Charge Ecological Laboratory (ALARM)

No.121, Corner of Shu Khin Thar Street & 7 Street, (3) Block, South Oakkalapa Township, Yangon.
Tel: 09-407496078, Email: aclab.2022@gmail.com

ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd). Consultant (Y.C.D.C), LWSE 001.
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

ISO 9001:2015 Cert. No.688283

W0725 578

WATER QUALITY TEST RESULTS FORM

Client	MPRL E & P
Nature of Water	Ground Water
Location	Z3GW1, Minbu Township.
Date and Time of collection	23.7.2025 (14:25 PM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	25.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis			WHO Drinking Water Guideline (Geneva - 1993)
pH	8.3		6.5 - 8.5
Colour (True)	5	TCU	15 TCU
Turbidity	13	NTU	5 NTU
Conductivity	1618	micro S/cm	
Total Hardness	120	mg/l as $CaCO_3$	500 mg/l as $CaCO_3$
Calcium Hardness	-	mg/l as $CaCO_3$	
Magnesium Hardness	-	mg/l as $CaCO_3$	
Total Alkalinity	220	mg/l as $CaCO_3$	
Phenolphthalein Alkalinity	-	mg/l as $CaCO_3$	
Carbonate ($CaCO_3$)	-	mg/l as $CaCO_3$	
Bicarbonate (HCO_3)	-	mg/l as $CaCO_3$	
Iron	-	mg/l	0.3 mg/l
Chloride (as CL)	-	mg/l	250 mg/l
Sodium Chloride (as NaCL)	-	mg/l	
Sulphate (as SO_4)	-	mg/l	500 mg/l
Total Solids	-	mg/l	1500 mg/l
Total Suspended Solids	20	mg/l	
Total Dissolved Solids	-	mg/l	1000 mg/l
Manganese	-	mg/l	0.05 mg/l
Phosphate	-	mg/l	
Phenolphthalein Acidity	-	mg/l	
Methyl Orange Acidity	-	mg/l	
Salinity	-	ppt	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo, B.Sc (Chemistry), Sr.Chemist

Approved by
Signature:
Name: Thinzar Theint Theint, B.E (Civil), Senior Engineer, ISO Tech Laboratory

(a division of WEG Co., Ltd.) ISO Tech Laboratory
No.18, Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd). Consultant (Y.C.D.C), LWSE 001.
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

ISO 9001:2015 Cert. No.688283

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WATER QUALITY TEST RESULTS FORM

Client: MPRL E & P
Nature of Water: Ground Water
Location: Z3GW1, Minbu Township.
Date and Time of collection: 23.7.2025 (14:25 PM)
Date and Time of arrival at Laboratory: 24.7.2025
Date and Time of commencing examination: 25.7.2025
Date and Time of completing: 28.7.2025

Results of Water Analysis			WHO Drinking Water Guideline (Geneva - 1993)
Temperature (°C)	25.0	°C	
Fluoride (F)	-	mg/l	1.5 mg/l
Lead (as Pb)	-	mg/l	0.01 mg/l
Arsenic (As)	Nil	mg/l	0.01 mg/l
Nitrate ($N.NO_3$)	-	mg/l	50 mg/l
Chlorine (Residual)	-	mg/l	
Ammonia Nitrogen (NH_3)	-	mg/l	
Ammonium Nitrogen (NH_4)	-	mg/l	
Dissolved Oxygen (DO)	7.2	mg/l	
Chemical Oxygen Demand (COD)	64	mg/l	
Biochemical Oxygen Demand (BOD) (5 days at 20 °C)	-	mg/l	
Cyanide (CN)	-	mg/l	0.07 mg/l
Zinc (Zn)	-	mg/l	3 mg/l
Copper (Cu)	-	mg/l	2 mg/l
Silica (SiO_2)	-	mg/l	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr.Chemist
ISO Tech Laboratory

Approved by
Signature: 29/7
Name: Thinzar Theint Theint
B.E (Civil)
Senior Engineer
ISO Tech Laboratory

(a division of WEG Co., Ltd.)
No.18. Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

ALARM Ecological Laboratory

Water Testing Result Report

Report Number: EL-WR-25-04983 **Date: August 14, 2025**

Client Information

Client Name	:	MPRL E & P Pte Ltd
Organization	:	-
Client ID	:	-
Registration Date & Time	:	24.7.2025
Contact	:	09-5177819
Email	:	han.m.aung@mprlexp.com
Testing Purpose	:	For Monitoring

Sample Information

Sample ID	:	13273
Sample Name	:	Z3GW2
Sample Type / Source	:	Ground Water
Sampling Date & Time	:	23.7.2025; 9:25 AM
Sample Location	:	Minbu Township
Latitude	:	-
Longitude	:	-

Testing Results

This laboratory analysis report is based solely on the sample submitted by the client unless client took our sampling service.
This report shall not be reproduced except in full, without written approval of the laboratory

Sr.	Quality Parameters	Results	Units	Drinking Standards	Remarks
1	Total Phosphorous[3]	0.25	mg/L	-	-
2	Boron[3]	0.30	mg/L	≤2.4 [c]	Normal
3	Fluoride[3]	< 0.05	mg/L	≤1.5 [c]	Normal
4	Oil & Grease [9]	3	mg/L	-	-
5	Total Nitrogen[3]	1.42	mg/L	-	-

"ND" = Not Detected "LOD" = Lower limit of detection " - " = No Reference Standard

Tested by	Checked by	Approved by
Daw May Myat Khine Lab. Technician II Ecological Laboratory ALARM	Daw Lin Myat Myat Aung Lab. Technician I Ecological Laboratory ALARM	Dr. Aye Aye Win Laboratory In-Charge Ecological Laboratory (ALARM)

No.121, Corner of Shu Khin Thar Street & 7 Street, (3) Block, South Oakkalapa Township, Yangon.
Tel: 09-407496078, Email: aelab.2022@gmail.com

ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd). Consultant (Y.C.D.C), LWSE 001.
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

ISO 9001:2015 Cert. No.688283

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Issue No - 1.0/Page 1 of 2

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WATER QUALITY TEST RESULTS FORM

Client	MPRL E & P
Nature of Water	Ground Water
Location	Z3GW2, Minbu Township.
Date and Time of collection	23.7.2025 (14:55 PM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	25.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis			WHO Drinking Water Guideline (Geneva - 1993)
pH	8.3		6.5 - 8.5
Colour (True)	5	TCU	15 TCU
Turbidity	14	NTU	5 NTU
Conductivity	500	micro S/cm	
Total Hardness	44	mg/l as $CaCO_3$	500 mg/l as $CaCO_3$
Calcium Hardness	-	mg/l as $CaCO_3$	
Magnesium Hardness	-	mg/l as $CaCO_3$	
Total Alkalinity	160	mg/l as $CaCO_3$	
Phenolphthalein Alkalinity	-	mg/l as $CaCO_3$	
Carbonate ($CaCO_3$)	-	mg/l as $CaCO_3$	
Bicarbonate (HCO_3)	-	mg/l as $CaCO_3$	
Iron	-	mg/l	0.3 mg/l
Chloride (as CL)	-	mg/l	250 mg/l
Sodium Chloride (as NaCL)	-	mg/l	
Sulphate (as SO_4)	-	mg/l	500 mg/l
Total Solids	-	mg/l	1500 mg/l
Total Suspended Solids	22	mg/l	
Total Dissolved Solids	-	mg/l	1000 mg/l
Manganese	-	mg/l	0.05 mg/l
Phosphate	-	mg/l	
Phenolphthalein Acidity	-	mg/l	
Methyl Orange Acidity	-	mg/l	
Salinity	-	ppt	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo, B.Sc (Chemistry), Sr.Chemist

Approved by
Signature:
Name: Thinzar Theint Theint, B.E (Civil), Senior Engineer

(a division of WEG Co., Ltd.) ISO Tech Laboratory

No.18. Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd). Consultant (Y.C.D.C), LWSE 001.
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

ISO 9001:2015 Cert. No.688283

W0725 579

WATER QUALITY TEST RESULTS FORM

Client	MPRL E & P
Nature of Water	Ground Water
Location	Z3GW2, Minbu Township.
Date and Time of collection	23.7.2025 (14:55 PM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	25.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis			WHO Drinking Water Guideline (Geneva - 1993)
Temperature (°C)	25.0	°C	
Fluoride (F)	-	mg/l	1.5 mg/l
Lead (as Pb)	-	mg/l	0.01 mg/l
Arsenic (As)	Nil	mg/l	0.01 mg/l
Nitrate ($N.NO_3$)	-	mg/l	50 mg/l
Chlorine (Residual)	-	mg/l	
Ammonia Nitrogen (NH_3)	-	mg/l	
Ammonium Nitrogen (NH_4)	-	mg/l	
Dissolved Oxygen (DO)	7.2	mg/l	
Chemical Oxygen Demand (COD)	64	mg/l	
Biochemical Oxygen Demand (BOD) (5 days at 20 °C)	-	mg/l	
Cyanide (CN)	-	mg/l	0.07 mg/l
Zinc (Zn)	-	mg/l	3 mg/l
Copper (Cu)	-	mg/l	2 mg/l
Silica (SiO_2)	-	mg/l	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr.Chemist
ISO Tech Laboratory

Approved by
Signature: 29/7
Name: Thinzar Theint Theint
B.E (Civil)
Senior Engineer
ISO Tech Laboratory

(a division of WEG Co., Ltd.)
No.18. Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

ALARM Ecological Laboratory

Water Testing Result Report

Report Number: EL-WR-25-04984 **Date: August 14, 2025**

Client Information			Sample Information		
Client Name	:	MPRL E & P Pte Ltd	Sample ID	:	13274
Organization	:	-	Sample Name	:	Z4GW2
Client ID	:	-	Sample Type / Source	:	Ground Water
Registration Date & Time	:	24.7.2025	Sampling Date & Time	:	23.7.2025; 15:00 PM
Contact	:	09-5177819	Sample Location	:	Minbu Township
Email	:	han.m.aung@mprlexp.com	Latitude	:	-
Testing Purpose	:	For Monitoring	Longitude	:	-

Testing Results

This laboratory analysis report is based solely on the sample submitted by the client unless client took our sampling service.
This report shall not be reproduced except in full, without written approval of the laboratory

Sr.	Quality Parameters	Results	Units	Drinking Standards	Remarks
1	Total Phosphorous[3]	0.28	mg/L	-	-
2	Boron[3]	0.51	mg/L	≤2.4 [c]	Normal
3	Fluoride[3]	< 0.05	mg/L	≤1.5 [c]	Normal
4	Oil & Grease [9]	4	mg/L	-	-
5	Total Nitrogen[3]	1.26	mg/L	-	-

"ND" = Not Detected "LOD" = Lower limit of detection " - " = No Reference Standard

Tested by	Checked by	Approved by
Daw May Myat Khine Lab. Technician II Ecological Laboratory ALARM	Daw Lin Myat Myat Aung Lab. Technician I Ecological Laboratory ALARM	Dr. Aye Aye Win Laboratory In-Charge Ecological Laboratory (ALARM)

No.121, Corner of Shu Khin Thar Street & 7 Street, (3) Block, South Oakkalapa Township, Yangon.
Tel: 09-407496078, Email: aelab.2022@gmail.com

ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd). Consultant (Y.C.D.C), LWSE 001.
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

ISO 9001:2015 Cert. No.688283

WTL-RE-001
Issue Date - 01-12-2012
Effective Date - 01-12-2012
Issue No - 1.0/Page 1 of 2

W0725 580

WATER QUALITY TEST RESULTS FORM

Client: MPRL E & P
Nature of Water: Ground Water
Location: Z4GW2, Minbu Township.
Date and Time of collection: 23.7.2025 (15:00 PM)
Date and Time of arrival at Laboratory: 24.7.2025
Date and Time of commencing examination: 25.7.2025
Date and Time of completing: 28.7.2025

Results of Water Analysis			WHO Drinking Water Guideline (Geneva - 1993)
pH	7.8		6.5 - 8.5
Colour (True)	10	TCU	15 TCU
Turbidity	22	NTU	5 NTU
Conductivity	13512	micro S/cm	
Total Hardness	390	mg/l as $CaCO_3$	500 mg/l as $CaCO_3$
Calcium Hardness	-	mg/l as $CaCO_3$	
Magnesium Hardness	-	mg/l as $CaCO_3$	
Total Alkalinity	1100	mg/l as $CaCO_3$	
Phenolphthalein Alkalinity	-	mg/l as $CaCO_3$	
Carbonate ($CaCO_3$)	-	mg/l as $CaCO_3$	
Bicarbonate (HCO_3)	-	mg/l as $CaCO_3$	
Iron	-	mg/l	0.3 mg/l
Chloride (as CL)	-	mg/l	250 mg/l
Sodium Chloride (as NaCL)	-	mg/l	
Sulphate (as SO_4)	-	mg/l	500 mg/l
Total Solids	-	mg/l	1500 mg/l
Total Suspended Solids	30	mg/l	
Total Dissolved Solids	-	mg/l	1000 mg/l
Manganese	-	mg/l	0.05 mg/l
Phosphate	-	mg/l	
Phenolphthalein Acidity	-	mg/l	
Methyl Orange Acidity	-	mg/l	
Salinity	-	ppt	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo, B.Sc (Chemistry), Sr.Chemist

Approved by
Signature:
Name: Thinzar Theint Theint, B.E (Civil), Senior Engineer

(a division of WEG Co., Ltd.) ISO Tech Laboratory

No.18. Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

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ISO 9001:2015 Cert. No.688283

WTL-RE-001
Issue Date - 01-12-2012
Effective Date - 01-12-2012
Issue No - 1.0/Page 2 of 2

W0725 580

WATER QUALITY TEST RESULTS FORM

Client	MPRL E & P
Nature of Water	Ground Water
Location	Z4GW2, Minbu Township.
Date and Time of collection	23.7.2025 (15:00 PM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	25.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis			WHO Drinking Water Guideline (Geneva - 1993)
Temperature (°C)	25.0	°C	
Fluoride (F)	-	mg/l	1.5 mg/l
Lead (as Pb)	-	mg/l	0.01 mg/l
Arsenic (As)	Nil	mg/l	0.01 mg/l
Nitrate ($N.NO_3$)	-	mg/l	50 mg/l
Chlorine (Residual)	-	mg/l	
Ammonia Nitrogen (NH_3)	-	mg/l	
Ammonium Nitrogen (NH_4)	-	mg/l	
Dissolved Oxygen (DO)	6.8	mg/l	
Chemical Oxygen Demand (COD)	64	mg/l	
Biochemical Oxygen Demand (BOD) (5 days at 20 °C)	-	mg/l	
Cyanide (CN)	-	mg/l	0.07 mg/l
Zinc (Zn)	-	mg/l	3 mg/l
Copper (Cu)	-	mg/l	2 mg/l
Silica (SiO_2)	-	mg/l	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr.Chemist
ISO Tech Laboratory

Approved by
Signature: 29/7
Name: Thinzar Theint Theint
B.E (Civil)
Senior Engineer
ISO Tech Laboratory

(a division of WEG Co., Ltd.)
No.18. Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

ALARM Ecological Laboratory

Water Testing Result Report

Report Number: EL-WR-25-04985 | **Date: August 14, 2025**

Client Information			Sample Information		
Client Name	:	MPRL E&P Ptd Ltd	Sample ID	:	13275
Organization	:	-	Sample Name	:	Bio-filter Outlet
Client ID	:	-	Sample Type / Source	:	Treated
Registration Date & Time	:	24.7.2025	Sampling Date & Time	:	23.7.2025; 13:10 PM
Contact	:	09-5177819	Sample Location	:	Minbu Tsp
Email	:	han.m.aung@mprlexp.com	Latitude	:	-
Testing Purpose	:	For Monitoring	Longitude	:	-

Testing Results

This laboratory analysis report is based solely on the sample submitted by the client unless client took our sampling service.
This report shall not be reproduced except in full, without written approval of the laboratory

Sr.	Quality Parameters	Results	Units	Emission Standards	Remarks
1	Dissolved Oxygen[2]	2.15	mg/L	-	-
2	BOD_5[6]	35	mg/L	≤ 50 [d]	Normal
3	Total Phosphorous[3]	1.86	mg/L	≤2 [d]	Normal
4	Oil & Grease [9]	6	mg/L	≤ 10 [d]	Normal
5	Total Nitrogen[3]	12.5	mg/L	-	-

"ND" = Not Detected | "LOD" = Lower limit of detection | " - " = No Reference Standard

Tested by	Checked by	Approved by
Daw May Myat Khine Lab. Technician II Ecological Laboratory ALARM	Daw Lin Myat Myat Aung Lab. Technician I Ecological Laboratory ALARM	Dr. Aye Aye Win Laboratory In-Charge Ecological Laboratory (ALARM)

No.121, Corner of Shu Khin That Street & 7 Street, (3) Block, South Oakkalapa Township, Yangon.
Tel: 09-407496078, Email: aelab.2022@gmail.com

ISO TECH LABORATORY

ISO-TECH LABORATORY

ISO 9001:2015 Cert. No.688283

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd), Consultant (Y.C.D.C), LWSE 001.
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WTL-RE-001
Issue Date - 01-12-2012
Effective Date - 01-12-2012
Issue No - 1.0/Page 1 of 2

WW0725 111

WATER QUALITY TEST RESULTS FORM

Client	MPRL E & P
Nature of Water	Sewage Treated Water
Location	Bio - Filter Outlet, Minbu Township.
Date and Time of collection	23.7.2025 (13:10 PM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	25.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis

pH	8.3		
Colour (True)	-	TCU	
Turbidity	65	NTU	
Conductivity	912	micro S/cm	
Total Hardness	-	mg/l as $CaCO_3$	
Calcium Hardness	-	mg/l as $CaCO_3$	
Magnesium Hardness	-	mg/l as $CaCO_3$	
Total Alkalinity	-	mg/l as $CaCO_3$	
Phenolphthalein Alkalinity	-	mg/l as $CaCO_3$	
Carbonate ($CaCO_3$)	-	mg/l as $CaCO_3$	
Bicarbonate (HCO_3)	-	mg/l as $CaCO_3$	
Iron	-	mg/l	
Chloride (as CL)	-	mg/l	
Sodium Chloride (as NaCL)	-	mg/l	
Sulphate (as SO_4)	-	mg/l	
Total Solids	-	mg/l	
Total Suspended Solids	40	mg/l	
Total Dissolved Solids	-	mg/l	
Manganese	-	mg/l	
Phosphate	-	mg/l	
Phenolphthalein Acidity	-	mg/l	
Methyl Orange Acidity	-	mg/l	
Salinity	-	ppt	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr.Chemist
ISO Tech Laboratory

Approved by
Signature:
Name: Thinzar Theint Theint
B.E (Civil)
Senior Engineer
ISO Tech Laboratory

(a division of WEG Co., Ltd.)

No.18. Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
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Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

WW0725 111

WATER QUALITY TEST RESULTS FORM

Client	MPRL E & P
Nature of Water	Sewage Treated Water
Location	Bio - Filter Outlet, Minbu Township.
Date and Time of collection	23.7.2025 (13:10 PM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	25.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis

Temperature (°C)	-	°C	
Fluoride (F)	-	mg/l	
Lead (as Pb)	-	mg/l	
Arsenic (As)	-	mg/l	
Nitrate ($N.NO_3$)	-	mg/l	
Chlorine (Residual)	-	mg/l	
Ammonia Nitrogen (NH_3)	-	mg/l	
Ammonium Nitrogen (NH_4)	-	mg/l	
Dissolved Oxygen (DO)	-	mg/l	
Chemical Oxygen Demand (COD)	96	mg/l	
Biochemical Oxygen Demand (BOD) (5 days at 20 °C)	-	mg/l	
Cyanide (CN)	-	mg/l	
Zinc (Zn)	-	mg/l	
Copper (Cu)	-	mg/l	
Silica (SiO_2)	-	mg/l	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr.Chemist
ISO Tech Laboratory

Approved by
Signature:
Name: Thinzar Theint Theint
B.E (Civil)
Senior Engineer
ISO Tech Laboratory

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ISO 9001:2015 Cert. No.688283

WTL-RE-001
Issue Date - 01-1-2016
Effective Date - 01-1-2016
Issue No - 1.0/Page 1 of 1

M0725 075

WATER QUALITY TEST (MICROBIOLOGY) RESULTS FORM

Client	MPRL E & P
Nature of Water	Sewage Treated Water
Location	Bio - Filter Outlet, Minbu Township.
Date and Time of collection	23.7.2025 (13:10 PM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	24.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis

			WHO Drinking Water Guideline (Geneva - 1993)
Total Coliform Count	60	CFU/100ml	Not detected
Thermotolerant (fecal) Coliform Count	8	CFU/100ml	Not detected
pH	8.3		6.5 - 8.5
Turbidity	65	NTU	5 NTU
Colour (True)	40	TCU	15 TCU
Free Chlorine	Nil	mg/l	
Total Chlorine	Nil	mg/l	

: This certificate is issued only for the receipt of the test sample.

: < - Less than

Tested by

Signature:

Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr.Chemist
ISO Tech Laboratory

Approved by

Signature: 29/7

Name: Thinzar Theint Theint
B.E (Civil)
Senior Engineer
ISO Tech Laboratory

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No.18. Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

ALARM Ecological Laboratory

Water Testing Result Report

Report Number: EL-WR-25-04986 | **Date: August 14, 2025**

Client Information

Client Name	:	MPRL E&P Ptd Ltd
Organization	:	-
Client ID	:	-
Registration Date & Time	:	24.7.2025
Contact	:	09-5177819
Email	:	han.m.aung@mprlexp.com
Testing Purpose	:	For Monitoring

Sample Information

Sample ID	:	13276
Sample Name	:	Hydro Test Water
Sample Type / Source	:	Warehouse
Sampling Date & Time	:	23.7.2025; 13:50 PM
Sample Location	:	Minbu Tsp
Latitude	:	-
Longitude	:	-

Testing Results

This laboratory analysis report is based solely on the sample submitted by the client unless client took our sampling service.
This report shall not be reproduced except in full, without written approval of the laboratory

Sr.	Quality Parameters	Results	Units	Emission Standards	Remarks
1	BOD_5 [6]	33	mg/L	≤ 50 [d]	Normal
2	Cadmium [7]	ND	mg/L	≤ 0.1 [d]	LOD = 0.01 mg/L
3	Lead [7]	ND	mg/L	≤ 0.1 [d]	LOD = 0.1 mg/L
4	Nickel [3]	0.21	mg/L	≤ 0.5 [d]	Normal
5	Sulfide [3]	0.336	mg/L	≤ 1 [d]	Normal
6	Phenol [3]	0.41	mg/L	≤ 0.5 [d]	Normal
7	Chromium (Hexavalent) [3]	0.21	mg/L	≤ 0.1	Above the Limit
8	Mercury	0.001	mg/L	≤ 0.01 [d]	Normal

"ND" = Not Detected | "LOD" = Lower limit of detection | " - " = No Reference Standard

Tested by	Checked by	Approved by
Daw May Myat Khine Lab. Technician II Ecological Laboratory ALARM	Daw Lin Myat Myat Aung Lab. Technician I Ecological Laboratory ALARM	Dr. Aye Aye Win Laboratory In-Charge Ecological Laboratory (ALARM)

No.121, Corner of Shu Khin Thar Street & 7 Street, (3) Block, South Oakkalapa Township, Yangon.
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ISO 9001:2015 Cert. No.688283

WTL-RE-001
Issue Date - 01-12-2012
Effective Date - 01-12-2012
Issue No - 1.0/Page 1 of 2

W0725 573

WATER QUALITY TEST RESULTS FORM

Client	MPRL E & P
Nature of Water	Hydro Test Water
Location	Warehouse, Minbu Township.
Date and Time of collection	23.7.2025 (13:50 PM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	25.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis

			WHO Drinking Water Guideline (Geneva - 1993)
pH	8.1		6.5 - 8.5
Colour (True)	-	TCU	15 TCU
Turbidity	-	NTU	5 NTU
Conductivity	-	micro S/cm	
Total Hardness	-	mg/l as $CaCO_3$	500 mg/l as $CaCO_3$
Calcium Hardness	-	mg/l as $CaCO_3$	
Magnesium Hardness	-	mg/l as $CaCO_3$	
Total Alkalinity	-	mg/l as $CaCO_3$	
Phenolphthalein Alkalinity	-	mg/l as $CaCO_3$	
Carbonate ($CaCO_3$)	-	mg/l as $CaCO_3$	
Bicarbonate (HCO_3)	-	mg/l as $CaCO_3$	
Iron	-	mg/l	0.3 mg/l
Chloride (as CL)	34	mg/l	250 mg/l
Sodium Chloride (as NaCL)	-	mg/l	
Sulphate (as SO_4)	-	mg/l	500 mg/l
Total Solids	-	mg/l	1500 mg/l
Total Suspended Solids	78	mg/l	
Total Dissolved Solids	-	mg/l	1000 mg/l
Manganese	-	mg/l	0.05 mg/l
Phosphate	-	mg/l	
Phenolphthalein Acidity	-	mg/l	
Methyl Orange Acidity	-	mg/l	
Salinity	-	ppt	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr.Chemist

Approved by
Signature:
Name: Thinzar Theint Theint
B.E (Civil)
Senior Engineer

(a division of WEG Co., Ltd.) ISO Tech Laboratory

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Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

W0725 573

WATER QUALITY TEST RESULTS FORM

Client	MPRL E & P
Nature of Water	Hydro Test Water
Location	Warehouse, Minbu Township.
Date and Time of collection	23.7.2025 (13:50 PM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	25.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis | **WHO Drinking Water Guideline (Geneva - 1993)**

Temperature (°C)	-	°C	
Fluoride (F)	-	mg/l	1.5 mg/l
Lead (as Pb)	-	mg/l	0.01 mg/l
Arsenic (As)	Nil	mg/l	0.01 mg/l
Nitrate ($N.NO_3$)	-	mg/l	50 mg/l
Chlorine (Residual)	-	mg/l	
Ammonia Nitrogen (NH_3)	-	mg/l	
Ammonium Nitrogen (NH_4)	-	mg/l	
Dissolved Oxygen (DO)	-	mg/l	
Chemical Oxygen Demand (COD)	64	mg/l	
Biochemical Oxygen Demand (BOD) (5 days at 20 °C)	-	mg/l	
Cyanide (CN)	-	mg/l	0.07 mg/l
Zinc (Zn)	Nil	mg/l	3 mg/l
Copper (Cu)	Nil	mg/l	2 mg/l
Silica (SiO_2)	-	mg/l	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr.Chemist
ISO Tech Laboratory

Approved by
Signature: 24/7
Name: Thinzar Theint Theint
B.E (Civil)
Senior Engineer
ISO Tech Laboratory

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Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

ALARM Ecological Laboratory

Water Testing Result Report

Report Number: EL-WR-25-04992 | **Date: August 14, 2025**

Client Information

Client Name	:	MPRL E&P Ptd Ltd
Organization	:	-
Client ID	:	-
Registration Date & Time	:	24.7.2025
Contact	:	09-5177819
Email	:	han.m.aung@mprlexp.com
Testing Purpose	:	For Monitoring

Sample Information

Sample ID	:	13282
Sample Name	:	Down-hole Workshop
Sample Type / Source	:	Domestic Water
Sampling Date & Time	:	23.7.2025; 14:10 PM
Sample Location	:	Minbu Tsp
Latitude	:	-
Longitude	:	-

Testing Results

This laboratory analysis report is based solely on the sample submitted by the client unless client took our sampling service.
This report shall not be reproduced except in full, without written approval of the laboratory

Sr.	Quality Parameters	Results	Units	Emission Standards	Remarks
1	Ammonia[3]	3.16	mg/L	≤ 10 [d]	Normal
2	BOD_5 [6]	71	mg/L	≤ 50 [d]	Above the limit
3	Cyanide[3]	0.031	mg/L	≤ 0.1 [d]	Normal
4	Free Cyanide[3]	0.022	mg/L	-	-
5	Total Phosphorous[3]	1.24	mg/L	≤2 [d]	Normal
6	Cadmium[7]	0.03	mg/L	≤ 0.1 [d]	Normal
7	Iron[7]	0.239	mg/L	≤ 250 [d]	Normal
8	Lead[7]	ND	mg/L	≤ 0.1 [d]	LOD = 0.1 mg/L
9	Nickel[3]	0.24	mg/L	≤ 0.5 [d]	Normal
10	Sulfide[3]	0.343	mg/L	≤ 1 [d]	Normal
11	Phenol[3]	0.28	mg/L	≤ 0.5 [d]	Normal
12	Oil & Grease [9]	8	mg/L	≤ 10 [d]	Normal
13	Chromium (Hexavalent)[3]	0.279	mg/L	≤ 0.1	Above the limit
14	Mercury	0.02	mg/L	≤ 0.01 [d]	Above the limit

"ND" = Not Detected | "LOD" = Lower limit of detection | " - " = No Reference Standard

Tested by	Checked by	Approved by
Daw May Myat Khine Lab. Technician II Ecological Laboratory ALARM	Daw Lin Myat Myat Aung Lab. Technician I Ecological Laboratory ALARM	Dr. Aye Aye Win Laboratory In-Charge Ecological Laboratory (ALARM)

No.121, Corner of Shu Khin Thar Street & 7 Street, (3) Block, South Oakkalapa Township, Yangon.
Tel: 09-407496078, Email: aclab.2022@gmail.com

ISO TECH LABORATORY

ISO-TECH LABORATORY

ISO 9001:2015 Cert. No.688283

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd), Consultant (Y.C.D.C), LWSE 001.
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

WW0725 113

WATER QUALITY TEST RESULTS FORM

Client	MPRL E & P
Nature of Water	Domestic Wastewater
Location	Down-Hole Workshop, Minbu Township.
Date and Time of collection	23.7.2025 (14:00 PM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	25.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis

pH	8.3		
Colour (True)	-	TCU	
Turbidity	-	NTU	
Conductivity	-	micro S/cm	
Total Hardness	-	mg/l as $CaCO_3$	
Calcium Hardness	-	mg/l as $CaCO_3$	
Magnesium Hardness	-	mg/l as $CaCO_3$	
Total Alkalinity	-	mg/l as $CaCO_3$	
Phenolphthalein Alkalinity	-	mg/l as $CaCO_3$	
Carbonate ($CaCO_3$)	-	mg/l as $CaCO_3$	
Bicarbonate (HCO_3)	-	mg/l as $CaCO_3$	
Iron	-	mg/l	
Chloride (as CL)	-	mg/l	
Sodium Chloride (as NaCL)	-	mg/l	
Sulphate (as SO_4)	-	mg/l	
Total Solids	-	mg/l	
Total Suspended Solids	80	mg/l	
Total Dissolved Solids	-	mg/l	
Manganese	-	mg/l	
Phosphate	-	mg/l	
Phenolphthalein Acidity	-	mg/l	
Methyl Orange Acidity	-	mg/l	
Salinity	-	ppt	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr.Chemist

Approved by
Signature:
Name: Thinzar Theint Theint
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Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd). Consultant (Y.C.D.C), LWSE 001.
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

WW0725 113

WATER QUALITY TEST RESULTS FORM

Client	MPRL E & P
Nature of Water	Domestic Wastewater
Location	Down-Hole Workshop, Minbu Township.
Date and Time of collection	23.7.2025 (14:00 PM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	25.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis

Temperature (°C)	25.0	°C	
Fluoride (F)	0.8	mg/l	
Lead (as Pb)	-	mg/l	
Arsenic (As)	Nil	mg/l	
Nitrate ($N.NO_3$)	-	mg/l	
Chlorine (Residual)	Nil	mg/l	
Ammonia Nitrogen (NH_3)	-	mg/l	
Ammonium Nitrogen (NH_4)	-	mg/l	
Dissolved Oxygen (DO)	-	mg/l	
Chemical Oxygen Demand (COD)	96	mg/l	
Biochemical Oxygen Demand (BOD) (5 days at 20 °C)	-	mg/l	
Cyanide (CN)	-	mg/l	
Zinc (Zn)	Nil	mg/l	
Copper (Cu)	Nil	mg/l	
Silica (SiO_2)	-	mg/l	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr.Chemist
ISO Tech Laboratory

Approved by
Signature:
Name: Thinzar Theint Theint
B.E (Civil)
Senior Engineer
ISO Tech Laboratory

(a division of WEG Co., Ltd.)
No.18. Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

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Laboratory Technical Consultant: U Saw Christopher Maung
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ISO 9001:2015 Cert. No.688283

WTL-RE-001
Issue Date - 01-1-2016
Effective Date - 01-1-2016
Issue No - 1.0/Page 1 of 1

M0725 077

WATER QUALITY TEST (MICROBIOLOGY) RESULTS FORM

Client	MPRL E & P
Nature of Water	Domestic Wastewater
Location	Down-Hole Workshop, Minbu Township.
Date and Time of collection	23.7.2025 (14:00 PM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	24.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis

			WHO Drinking Water Guideline (Geneva - 1993)
Total Coliform Count	40	CFU/100ml	Not detected
Thermotolerant (fecal) Coliform Count	8	CFU/100ml	Not detected
pH	8.3		6.5 - 8.5
Turbidity	120	NTU	5 NTU
Colour (True)	80	TCU	15 TCU
Free Chlorine	Nil	mg/l	
Total Chlorine	Nil	mg/l	

: This certificate is issued only for the receipt of the test sample.

: < - Less than

Tested by

Signature:

Name: Zaw Hein Oo
~~B.Sc (Chemistry)~~
Sr.Chemist
ISO Tech Laboratory

Approved by

Signature: 29/7

Name: Thinzar Theint Theint
B.E (Civil)
Senior Engineer
ISO Tech Laboratory

(a division of WEG Co., Ltd.)
No.18. Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

ALARM Ecological Laboratory

Water Testing Result Report

Report Number: EL-WR-25-04991 | **Date: August 14, 2025**

Client Information			Sample Information		
Client Name	:	MPRL E&P Ptd Ltd	Sample ID	:	13281
Organization	:	-	Sample Name	:	Mechanical Workshop
Client ID	:	-	Sample Type / Source	:	Domestic Water
Registration Date & Time	:	24.7.2025	Sampling Date & Time	:	23.7.2025; 14:20 PM
Contact	:	09-5177819	Sample Location	:	Minbu Tsp
Email	:	han.m.aung@mprlexp.com	Latitude	:	-
Testing Purpose	:	For Monitoring	Longitude	:	-

Testing Results

This laboratory analysis report is based solely on the sample submitted by the client unless client took our sampling service.
This report shall not be reproduced except in full, without written approval of the laboratory

Sr.	Quality Parameters	Results	Units	Emission Standards	Remarks
1	Ammonia[3]	2.4	mg/L	≤ 10 [d]	Normal
2	BOD_5 [6]	24	mg/L	≤ 50 [d]	Normal
3	Total Cyanide[3]	0.034	mg/L	-	-
4	Free Cyanide[3]	0.025	mg/L	≤ 0.1 [d]	Normal
5	Total Phosphorous[3]	1.31	mg/L	≤2 [d]	Normal
6	Cadmium[7]	0.04	mg/L	≤ 0.1 [d]	Normal
7	Iron[7]	0.258	mg/L	≤ 3.5 [d]	Normal
8	Lead[7]	ND	mg/L	≤ 0.1 [d]	LOD = 0.1 mg/L
9	Nickel[3]	0.31	mg/L	≤ 0.5 [d]	Normal
10	Sulfide[3]	0.341	mg/L	≤ 1 [d]	Normal
11	Phenol[3]	0.31	mg/L	≤ 0.5 [d]	Normal
12	Oil & Grease [9]	7	mg/L	≤ 10 [d]	Normal
13	Chromium (Hexavalent)[3]	0.31	mg/L	≤ 0.1	Above the Limit
14	Mercury	0.03	mg/L	≤ 0.01 [d]	Above the Limit

"ND" = Not Detected | "LOD" = Lower limit of detection | " - " = No Reference Standard

Tested by	Checked by	Approved by
Daw May Myat Khine Lab. Technician II Ecological Laboratory ALARM	Daw Lin Myat Myat Aung Lab. Technician I Ecological Laboratory ALARM	Dr. Aye Aye Win Laboratory In-Charge Ecological Laboratory (ALARM)

No.121, Corner of Shu Khin Thar Street & 7 Street, (3) Block, South Oakkalapa Township, Yangon.
Tel: 09-407496078, Email; aelab.2022@gmail.com

ISO TECH LABORATORY

ISO-TECH LABORATORY

ISO 9001:2015 Cert. No.688283

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd). Consultant (Y.C.D.C), LWSE 001.
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

WW0725 112

WATER QUALITY TEST RESULTS FORM

Client	MPRL E & P
Nature of Water	Domestic Wastewater
Location	Mechanical Workshop, Minbu Township.
Date and Time of collection	23.7.2025 (14:20 PM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	25.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis

pH	8.4		
Colour (True)	-	TCU	
Turbidity	-	NTU	
Conductivity	-	micro S/cm	
Total Hardness	-	mg/l as $CaCO_3$	
Calcium Hardness	-	mg/l as $CaCO_3$	
Magnesium Hardness	-	mg/l as $CaCO_3$	
Total Alkalinity	-	mg/l as $CaCO_3$	
Phenolphthalein Alkalinity	-	mg/l as $CaCO_3$	
Carbonate ($CaCO_3$)	-	mg/l as $CaCO_3$	
Bicarbonate (HCO_3)	-	mg/l as $CaCO_3$	
Iron	-	mg/l	
Chloride (as CL)	-	mg/l	
Sodium Chloride (as NaCL)	-	mg/l	
Sulphate (as SO_4)	-	mg/l	
Total Solids	-	mg/l	
Total Suspended Solids	58	mg/l	
Total Dissolved Solids	-	mg/l	
Manganese	-	mg/l	
Phosphate	-	mg/l	
Phenolphthalein Acidity	-	mg/l	
Methyl Orange Acidity	-	mg/l	
Salinity	-	ppt	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr.Chemist
ISO Tech Laboratory

Approved by
Signature: 29/7
Name: Thinzar Theint Theint
B.E (Civil)
Senior Engineer
ISO Tech Laboratory

(a division of WEG Co., Ltd.)
No.18. Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

WW0725 112

WATER QUALITY TEST RESULTS FORM

Client	MPRL E & P
Nature of Water	Domestic Wastewater
Location	Mechanical Workshop, Minbu Township.
Date and Time of collection	23.7.2025 (14:20 PM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	25.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis

Temperature (°C)	25.0	°C	
Fluoride (F)	3.3	mg/l	
Lead (as Pb)	-	mg/l	
Arsenic (As)	Nil	mg/l	
Nitrate ($N.NO_3$)	-	mg/l	
Chlorine (Residual)	Nil	mg/l	
Ammonia Nitrogen (NH_3)	-	mg/l	
Ammonium Nitrogen (NH_4)	-	mg/l	
Dissolved Oxygen (DO)	-	mg/l	
Chemical Oxygen Demand (COD)	64	mg/l	
Biochemical Oxygen Demand (BOD) (5 days at 20 °C)	-	mg/l	
Cyanide (CN)	-	mg/l	
Zinc (Zn)	Nil	mg/l	
Copper (Cu)	Nil	mg/l	
Silica (SiO_2)	-	mg/l	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr.Chemist
ISO Tech Laboratory

Approved by
Signature: 29/7
Name: Thinzar Theint Theint
B.E (Civil)
Senior Engineer
ISO Tech Laboratory

ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd). Consultant (Y.C.D.C), LWSE 001.
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

ISO 9001:2015 Cert. No.688283

WTL-RE-001
Issue Date - 01-1-2016
Effective Date - 01-1-2016
Issue No - 1.0/Page 1 of 1

M0725 076

WATER QUALITY TEST (MICROBIOLOGY) RESULTS FORM

Client	MPRL E & P
Nature of Water	Domestic Wastewater
Location	Mechanical Workshop, Minbu Township.
Date and Time of collection	23.7.2025 (14:20 PM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	24.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis			WHO Drinking Water Guideline (Geneva - 1993)
Total Coliform Count	10	CFU/100ml	Not detected
Thermotolerant (fecal) Coliform Count	2	CFU/100ml	Not detected
pH	8.4		6.5 - 8.5
Turbidity	72	NTU	5 NTU
Colour (True)	50	TCU	15 TCU
Free Chlorine	Nil	mg/l	
Total Chlorine	Nil	mg/l	

: This certificate is issued only for the receipt of the test sample.

: < - Less than

Tested by

Signature:

Name: Zaw Hein Oo
~~B.Sc (Chemistry)~~
Sr.Chemist
ISO Tech Laboratory

Approved by

Signature:

Name: Thinzar Theint Theint
B.E (Civil)
Senior Engineer
ISO Tech Laboratory

(a division of WEG Co., Ltd.)
No.18. Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

ALARM Ecological Laboratory

Water Testing Result Report

Report Number: EL-WR-25-04989 | **Date: August 14, 2025**

Client Information

Client Name	:	MPRL E&P Ptd Ltd
Organization	:	-
Client ID	:	-
Registration Date & Time	:	24.7.2025
Contact	:	09-5177819
Email	:	han.m.aung@mprlexp.com
Testing Purpose	:	For Monitoring

Sample Information

Sample ID	:	12379
Sample Name	:	R.O Drinking Water
Sample Type / Source	:	Treated Water
Sampling Date & Time	:	23.7.2025; 13:00 PM
Sample Location	:	Minbu Tsp
Latitude	:	-
Longitude	:	-

Testing Results

This laboratory analysis report is based solely on the sample submitted by the client unless client took our sampling service.
This report shall not be reproduced except in full, without written approval of the laboratory

Sr.	Quality Parameters	Results	Units	Drinking Standards	Remarks
1	Lead[7]	ND	mg/L	≤ 0.1[d]	LOD = 0.1 mg/L
2	Manganese[3]	< 0.2	mg/L	≤ 2[d]	Normal

"ND" = Not Detected | "LOD" = Lower limit of detection | " - " = No Reference Standard

Tested by	Checked by	Approved by
Daw May Myat Khine Lab. Technician II Ecological Laboratory ALARM	Daw Lin Myat Myat Aung Lab. Technician I Ecological Laboratory ALARM	Dr. Aye Aye Win Laboratory In-Charge Ecological Laboratory (ALARM)

No.121, Corner of Shu Khin Thar Street & 7 Street, (3) Block, South Oakkalapa Township, Yangon.
Tel: 09-407496078, Email: aelab.2022@gmail.com

ISO TECH LABORATORY

ISO-TECH LABORATORY

ISO 9001:2015 Cert. No.688283

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd). Consultant (Y.C.D.C), LWSE 001.
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

W0725 571

WATER QUALITY TEST RESULTS FORM

Client	MPRL E & P
Nature of Water	Treated Water
Location	RO Drinking Water, Minbu Township.
Date and Time of collection	23.7.2025 (13:00 PM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	25.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis

			WHO Drinking Water Guideline (Geneva - 1993)
pH	6.6		6.5 - 8.5
Colour (True)	5	TCU	15 TCU
Turbidity	7	NTU	5 NTU
Conductivity	-	micro S/cm	
Total Hardness	4	mg/l as $CaCO_3$	500 mg/l as $CaCO_3$
Calcium Hardness	-	mg/l as $CaCO_3$	
Magnesium Hardness	-	mg/l as $CaCO_3$	
Total Alkalinity	-	mg/l as $CaCO_3$	
Phenolphthalein Alkalinity	-	mg/l as $CaCO_3$	
Carbonate ($CaCO_3$)	-	mg/l as $CaCO_3$	
Bicarbonate (HCO_3)	-	mg/l as $CaCO_3$	
Iron	0.09	mg/l	0.3 mg/l
Chloride (as CL)	2	mg/l	250 mg/l
Sodium Chloride (as NaCL)	-	mg/l	
Sulphate (as SO_4)	Nil	mg/l	500 mg/l
Total Solids	-	mg/l	1500 mg/l
Total Suspended Solids	-	mg/l	
Total Dissolved Solids	4	mg/l	1000 mg/l
Manganese	-	mg/l	0.05 mg/l
Phosphate	-	mg/l	
Phenolphthalein Acidity	-	mg/l	
Methyl Orange Acidity	-	mg/l	
Salinity	-	ppt	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr.Chemist
ISO Tech Laboratory

Approved by
Signature:
Name: Thinzar Theint Theint
B.E (Civil)
Senior Engineer
ISO Tech Laboratory

(a division of WEG Co., Ltd.)
No.18. Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

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Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

W0725 571

WATER QUALITY TEST RESULTS FORM

Client	MPRL E & P
Nature of Water	Treated Water
Location	RO Drinking Water, Minbu Township.
Date and Time of collection	23.7.2025 (13:00 PM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	25.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis

			WHO Drinking Water Guideline (Geneva - 1993)
Temperature (°C)	-	°C	
Fluoride (F)	-	mg/l	1.5 mg/l
Lead (as Pb)	-	mg/l	0.01 mg/l
Arsenic (As)	Nil	mg/l	0.01 mg/l
Nitrate ($N.NO_3$)	Nil	mg/l	50 mg/l
Chlorine (Residual)	-	mg/l	
Ammonia Nitrogen (NH_3)	-	mg/l	
Ammonium Nitrogen (NH_4)	-	mg/l	
Dissolved Oxygen (DO)	-	mg/l	
Chemical Oxygen Demand (COD)	-	mg/l	
Biochemical Oxygen Demand (BOD) (5 days at 20 °C)	-	mg/l	
Cyanide (CN)	-	mg/l	0.07 mg/l
Zinc (Zn)	-	mg/l	3 mg/l
Copper (Cu)	-	mg/l	2 mg/l
Silica (SiO_2)	-	mg/l	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr.Chemist
ISO Tech Laboratory

Approved by
Signature: 29/7
Name: Thinzar Theint Theint
B.E (Civil)
Senior Engineer
ISO Tech Laboratory

(a division of WEG Co., Ltd.)
No.18. Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
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Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

ISO 9001:2015 Cert. No.688283

WTL-RE-001
Issue Date - 01-1-2016
Effective Date - 01-1-2016
Issue No - 1.0/Page 1 of 1

M0825 006

WATER QUALITY TEST (MICROBIOLOGY) RESULTS FORM

Client	MPRL E & P
Nature of Water	Treated Water
Location	RO Drinking Water, Minbu Township.
Date and Time of collection	5.8.2025
Date and Time of arrival at Laboratory	6.8.2025
Date and Time of commencing examination	6.8.2025
Date and Time of completing	7.8.2025

Results of Water Analysis			WHO Drinking Water Guideline (Geneva - 1993)
Total Coliform Count	Not detected (<1)	CFU/100ml	Not detected
Thermotolerant (fecal) Coliform Count	Not detected (<1)	CFU/100ml	Not detected
pH	6.5		6.5 - 8.5
Turbidity	Nil	NTU	5 NTU
Colour (True)	Nil	TCU	15 TCU
Free Chlorine	Nil	mg/l	
Total Chlorine	Nil	mg/l	

Remark : Satisfactory for drinking purpose.

: This certificate is issued only for the receipt of the test sample.

: < - Less than

Tested by

Signature:

Name: Saw Hein Oo
~~B.Sc (Chemistry)~~
Sr.Chemist
ISO Tech Laboratory

Approved by

Signature:

Name: Thinzar Theint Theint
~~B.E (Civil)~~
Senior Engineer
ISO Tech Laboratory

(a division of WEG Co., Ltd.)
No.18. Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

ALARM Ecological Laboratory

Water Testing Result Report

Report Number: EL-WR-25-04987 | **Date: August 14, 2025**

Client Information

Client Name	:	MPRL E&P Ptd Ltd
Organization	:	-
Client ID	:	-
Registration Date & Time	:	24.7.2025; 10:30 AM
Contact	:	09-5177819
Email	:	han.m.aung@mprlexp.com
Testing Purpose	:	For Monitoring

Sample Information

Sample ID	:	13277
Sample Name	:	Ko Win Mg
Sample Type / Source	:	Tube Well
Sampling Date & Time	:	23.7.2025; 10:45 AM
Sample Location	:	Minbu Tsp
Latitude	:	-
Longitude	:	-

Testing Results

This laboratory analysis report is based solely on the sample submitted by the client unless client took our sampling service.
This report shall not be reproduced except in full, without written approval of the laboratory

Sr.	Quality Parameters	Results	Units	Drinking Standards	Remarks
1	Lead[7]	ND	mg/L	≤ 0.1[d]	LOD = 0.1 mg/L
2	Manganese[3]	0.46	mg/L	≤ 2[d]	Normal

"ND" = Not Detected | "LOD" = Lower limit of detection | " - " = No Reference Standard

Tested by	Checked by	Approved by
Daw May Myat Khine Lab. Technician II Ecological Laboratory ALARM	Daw Lin Myat Myat Aung Lab. Technician I Ecological Laboratory ALARM	Dr. Aye Aye Win Laboratory In-Charge Ecological Laboratory (ALARM)

No.121, Corner of Shu Khin Thar Street & 7 Street, (3) Block, South Oakkalapa Township, Yangon.
Tel: 09-407496078, Email: aelab.2022@gmail.com

ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd), Consultant (Y.C.D.C), LWSE 001.
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

ISO 9001:2015 Cert. No.688283

WTL-RE-001
Issue Date - 01-12-2012
Effective Date - 01-12-2012
Issue No - 1.0/Page 1 of 2

W0725 569

WATER QUALITY TEST RESULTS FORM

Client	MPRL E & P
Nature of Water	Tube Well Water
Location	Ko Win Mg, Minbu Township.
Date and Time of collection	23.7.2025 (10:55 AM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	25.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis

			WHO Drinking Water Guideline (Geneva - 1993)
pH	7.8		6.5 - 8.5
Colour (True)	5	TCU	15 TCU
Turbidity	9	NTU	5 NTU
Conductivity	-	micro S/cm	
Total Hardness	164	mg/l as $CaCO_3$	500 mg/l as $CaCO_3$
Calcium Hardness	-	mg/l as $CaCO_3$	
Magnesium Hardness	-	mg/l as $CaCO_3$	
Total Alkalinity	-	mg/l as $CaCO_3$	
Phenolphthalein Alkalinity	-	mg/l as $CaCO_3$	
Carbonate ($CaCO_3$)	-	mg/l as $CaCO_3$	
Bicarbonate (HCO_3)	-	mg/l as $CaCO_3$	
Iron	0.33	mg/l	0.3 mg/l
Chloride (as CL)	55	mg/l	250 mg/l
Sodium Chloride (as NaCL)	-	mg/l	
Sulphate (as SO_4)	111	mg/l	500 mg/l
Total Solids	-	mg/l	1500 mg/l
Total Suspended Solids	-	mg/l	
Total Dissolved Solids	888	mg/l	1000 mg/l
Manganese	-	mg/l	0.05 mg/l
Phosphate	-	mg/l	
Phenolphthalein Acidity	-	mg/l	
Methyl Orange Acidity	-	mg/l	
Salinity	-	ppt	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr.Chemist
ISO Tech Laboratory

Approved by
Signature:
Name: Thinzar Theint Theint
B.E (Civil)
Senior Engineer
ISO Tech Laboratory

(a division of WEG Co., Ltd.)

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ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd). Consultant (Y.C.D.C), LWSE 001.
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

W0725 569

WATER QUALITY TEST RESULTS FORM

Client	MPRL E & P
Nature of Water	Tube Well Water
Location	Ko Win Mg, Minbu Township.
Date and Time of collection	23.7.2025 (10:55 AM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	25.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis

			WHO Drinking Water Guideline (Geneva - 1993)
Temperature (°C)	-	°C	
Fluoride (F)	-	mg/l	1.5 mg/l
Lead (as Pb)	-	mg/l	0.01 mg/l
Arsenic (As)	Nil	mg/l	0.01 mg/l
Nitrate ($N.NO_3$)	Nil	mg/l	50 mg/l
Chlorine (Residual)	-	mg/l	
Ammonia Nitrogen (NH_3)	-	mg/l	
Ammonium Nitrogen (NH_4)	-	mg/l	
Dissolved Oxygen (DO)	-	mg/l	
Chemical Oxygen Demand (COD)	-	mg/l	
Biochemical Oxygen Demand (BOD) (5 days at 20 °C)	-	mg/l	
Cyanide (CN)	-	mg/l	0.07 mg/l
Zinc (Zn)	-	mg/l	3 mg/l
Copper (Cu)	-	mg/l	2 mg/l
Silica (SiO_2)	-	mg/l	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr.Chemist
ISO Tech Laboratory

Approved by
Signature: 29/7
Name: Thinzar Theint Theint
B.E (Civil)
Senior Engineer
ISO Tech Laboratory

(a division of WEG Co., Ltd.)
No.18. Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd), Consultant (Y.C.D.C), LWSE 001.
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

ISO 9001:2015 Cert. No.688283

WTL-RE-001
Issue Date - 01-1-2016
Effective Date - 01-1-2016
Issue No - 1.0/Page 1 of 1

M0725 078

WATER QUALITY TEST (MICROBIOLOGY) RESULTS FORM

Client	MPRL E & P
Nature of Water	Tube Well Water
Location	Ko Win Mg, Minbu Township.
Date and Time of collection	23.7.2025 (10:55 AM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	24.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis

			WHO Drinking Water Guideline (Geneva - 1993)
Total Coliform Count	3	CFU/100ml	Not detected
Thermotolerant (fecal) Coliform Count	Not detected (<1)	CFU/100ml	Not detected
pH	7.8		6.5 - 8.5
Turbidity	9	NTU	5 NTU
Colour (True)	5	TCU	15 TCU
Free Chlorine	Nil	mg/l	
Total Chlorine	Nil	mg/l	

Remark : Unsatisfactory for drinking purpose.

: This certificate is issued only for the receipt of the test sample.

: < - Less than

Tested by

Signature:
Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr.Chemist
ISO Tech Laboratory

Approved by

Signature: 29/7
Name: Thinzar Theint Theint
B.E (Civil)
Senior Engineer
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ALARM Ecological Laboratory

Water Testing Result Report

Report Number: EL-WR-25-04988 **Date: August 10, 2025**

Client Information

Client Name	:	MPRL E&P Ptd Ltd
Organization	:	-
Client ID	:	-
Registration Date & Time	:	24.7.2025
Contact	:	09-5177819
Email	:	han.m.aung@mprlexp.com
Testing Purpose	:	For Monitoring

Sample Information

Sample ID	:	13278
Sample Name	:	Ma Nyein
Sample Type / Source	:	-
Sampling Date & Time	:	23.7.2025; 10:45 AM
Sample Location	:	Minbu Tsp
Latitude	:	-
Longitude	:	-

Testing Results

This laboratory analysis report is based solely on the sample submitted by the client unless client took our sampling service.
This report shall not be reproduced except in full, without written approval of the laboratory

Sr.	Quality Parameters	Results	Units	Drinking Standards	Remarks
1	Lead[7]	ND	mg/L	≤ 0.1[d]	LOD = 0.1 mg/L
2	Manganese[3]	0.51	mg/L	≤ 2[d]	Normal

"ND" = Not Detected | "LOD" = Lower limit of detection | " - " = No Reference Standard

Tested by	Checked by	Approved by
Daw May Myat Khine Lab. Technician II Ecological Laboratory ALARM	Daw Lin Myat Myat Aung Lab. Technician I Ecological Laboratory ALARM	Dr. Aye Aye Win Laboratory In-Charge Ecological Laboratory (ALARM)

No.121, Corner of Shu Khin Thar Street & 7 Street, (3) Block, South Oakkalapa Township, Yangon.
Tel: 09-407496078, Email: aclab.2022@gmail.com

ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd), Consultant (Y.C.D.C), LWSE 001.
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ISO 9001:2015 Cert. No.688283

WTL-RE-001
Issue Date - 01-12-2012
Effective Date - 01-12-2012
Issue No - 1.0/Page 1 of 2

W0725 570

WATER QUALITY TEST RESULTS FORM

Client	MPRL E & P
Nature of Water	Tube Well Water
Location	Ma Nyein, Minbu Township.
Date and Time of collection	23.7.2025 (10:45 AM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	25.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis

			WHO Drinking Water Guideline (Geneva - 1993)
pH	8.2		6.5 - 8.5
Colour (True)	5	TCU	15 TCU
Turbidity	12	NTU	5 NTU
Conductivity	-	micro S/cm	
Total Hardness	92	mg/l as $CaCO_3$	500 mg/l as $CaCO_3$
Calcium Hardness	-	mg/l as $CaCO_3$	
Magnesium Hardness	-	mg/l as $CaCO_3$	
Total Alkalinity	-	mg/l as $CaCO_3$	
Phenolphthalein Alkalinity	-	mg/l as $CaCO_3$	
Carbonate ($CaCO_3$)	-	mg/l as $CaCO_3$	
Bicarbonate (HCO_3)	-	mg/l as $CaCO_3$	
Iron	0.37	mg/l	0.3 mg/l
Chloride (as CL)	25	mg/l	250 mg/l
Sodium Chloride (as NaCL)	-	mg/l	
Sulphate (as SO_4)	82	mg/l	500 mg/l
Total Solids	-	mg/l	1500 mg/l
Total Suspended Solids	-	mg/l	
Total Dissolved Solids	519	mg/l	1000 mg/l
Manganese	-	mg/l	0.05 mg/l
Phosphate	-	mg/l	
Phenolphthalein Acidity	-	mg/l	
Methyl Orange Acidity	-	mg/l	
Salinity	-	ppt	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo, B.Sc (Chemistry), Sr.Chemist

Approved by
Signature:
Name: Thinzar Theint Theint, B.E (Civil), Senior Engineer, ISO Tech Laboratory

(a division of WEG Co., Ltd.) ISO Tech Laboratory

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ISO 9001:2015 Cert. No.688283

W0725 570

WATER QUALITY TEST RESULTS FORM

Client	MPRL E & P
Nature of Water	Tube Well Water
Location	Ma Nyein, Minbu Township.
Date and Time of collection	23.7.2025 (10:45 AM)
Date and Time of arrival at Laboratory	24.7.2025
Date and Time of commencing examination	25.7.2025
Date and Time of completing	28.7.2025

Results of Water Analysis

			WHO Drinking Water Guideline (Geneva - 1993)
Temperature (°C)	-	°C	
Fluoride (F)	-	mg/l	1.5 mg/l
Lead (as Pb)	-	mg/l	0.01 mg/l
Arsenic (As)	Nil	mg/l	0.01 mg/l
Nitrate ($N.NO_3$)	Nil	mg/l	50 mg/l
Chlorine (Residual)	-	mg/l	
Ammonia Nitrogen (NH_3)	-	mg/l	
Ammonium Nitrogen (NH_4)	-	mg/l	
Dissolved Oxygen (DO)	-	mg/l	
Chemical Oxygen Demand (COD)	-	mg/l	
Biochemical Oxygen Demand (BOD) (5 days at 20 °C)	-	mg/l	
Cyanide (CN)	-	mg/l	0.07 mg/l
Zinc (Zn)	-	mg/l	3 mg/l
Copper (Cu)	-	mg/l	2 mg/l
Silica (SiO_2)	-	mg/l	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr.Chemist
ISO Tech Laboratory

Approved by
Signature:
Name: Thinzar Theint Theint
B.E (Civil)
Senior Engineer
ISO Tech Laboratory

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ISO 9001:2015 Cert. No.688283

WTL-RE-001
Issue Date - 01-1-2016
Effective Date - 01-1-2016
Issue No - 1.0/Page 1 of 1

M0725 079

WATER QUALITY TEST (MICROBIOLOGY) RESULTS FORM

Client: MPRL E & P
Nature of Water: Tube Well Water
Location: Ma Nyein, Minbu Township.
Date and Time of collection: 23.7.2025 (10:45 AM)
Date and Time of arrival at Laboratory: 24.7.2025
Date and Time of commencing examination: 24.7.2025
Date and Time of completing: 28.7.2025

Results of Water Analysis

			WHO Drinking Water Guideline (Geneva - 1993)
Total Coliform Count	3	CFU/100ml	Not detected
Thermotolerant (fecal) Coliform Count	Not detected (<1)	CFU/100ml	Not detected
pH	8.2		6.5 - 8.5
Turbidity	12	NTU	5 NTU
Colour (True)	5	TCU	15 TCU
Free Chlorine	Nil	mg/l	
Total Chlorine	Nil	mg/l	

Remark : Unsatisfactory for drinking purpose.
: This certificate is issued only for the receipt of the test sample.
: < - Less than

Tested by
Signature:
Name: Zaw Hein Oo
~~B.Sc (Chemistry)~~
Sr.Chemist
ISO Tech Laboratory

Approved by
Signature:
Name: Thinzar Theint Theint
~~B.E (Civil)~~
Senior Engineer
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Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

Calibration Certificate

Instrument SN: 230319P-004
Calibration Date: 7/23/2025
Part Number: VTS-K1232110201
Job Number: 230319
Setup Date: 3/14/2023
Setup Technician: JN
Created By: iNet
Battery: Dual-cell lithium-ion battery pack
Assigned User: MPRL E&P PTE LTD.

Pangolin Protective Equipment Company Limited
No:
Date:

Sensor SN	Sensor Type	Gas Type	Span Gas	Span Reserve	Passed/Failed	Gas Alert	Alarm Low	Alarm High	Alarm TWA	Alarm STEL
23023P2299	CO	Carbon Monoxide	100.00	349.00%	Passed	0.00	35.00	70.00	35.00	200.00
230115P533	H2S	Hydrogen Sulfide	25.00	138.00%	Passed	0.00	10.00	20.00	10.00	15.00
23023P1367	LEL	Pentane	25.00	196.00%	Passed	0.00	10.00	20.00	N/A	N/A
23030G7318	O2	Oxygen	20.90	169.86%	Passed	0.00	19.50	23.50	N/A	N/A

Sensor SN	Sensor Type	Cal Date/Time	Cylinder ID	Cylinder Exp	Zero Cylinder Id	Zero Cylinder Exp
23023P2299	CO	7/23/2025 4:15:23 PM (GMT+06:30)	302536BC185822	11/28/2026	Fresh Air	N/A
230115P533	H2S	7/23/2025 4:14:43 PM (GMT+06:30)	302536BC185822	11/28/2026	Fresh Air	N/A
23023P1367	LEL	7/23/2025 4:15:53 PM (GMT+06:30)	302536BC185822	11/28/2026	Fresh Air	N/A
23030G7318	O2	7/23/2025 4:13:27 PM (GMT+06:30)	Fresh Air	N/A	Fresh Air	N/A

: Calibrated By: Pangolin Protective Equipment Company Limited. Next Calibration Due Date is January 2026. Remark: Calibration Passed.

230319P-004

MPRL E&P Pte Ltd.

Vantage Tower, 623 Pyay Road
Kamayut Township 11041, Yangon, Myanmar
Tel : +95 1 230 7733 Fax : +95 1 230 7744
Email : mprlstaff@mprlexp.com

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mprlep myanmar_mprlexp