

Insight!



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MPRL E&P Newsletter

26th March 2020



Myanmar Thingyan New Year Greetings

Myanmar Era 1382

by the Chief Executive to all Staff Members of
MPRL E&P Group of Companies



As we usher-in the new Myanmar Era ME 1382 during the month of April, I extend my warmest wishes to everyone in Myanmar for long-lasting peace, unity, prosperity, and to all staff of our MPRL E&P Group of Companies an abundance of health, happiness, and success in the coming year.

Maha Thingyan meaning transition, which is derived from Sanskrit, marks an auspicious occasion in Myanmar and offers an opportunity for us to symbolically wash away and leave behind ill health, bad deeds, and misfortunes of the past before leaping into a new year. In the Myanmar Lunar New Year, may we find refuge in the wisdom of Lord Buddha and his noble teachings, under the continued guidance of the Sangha. May we fully embrace the virtues of **Metta**, **Karuna** and **Mudita**, where benevolence, compassion, and vicarious joy shape our actions towards others in this New Year, and in the future.

On that note, MPRL E&P is undergoing truly exciting times to become not only a leading independent onshore operator, but also preparing to be an offshore independent operator of a major, yet a very unique ultra-deepwater project in Southeast Asia. We remain the largest single investor in Block A-6 Gas Development Project, as a privately-owned enterprise. By contrast, our partners are listed in international stock exchanges, and rely on hundreds of thousands of investors. This is in fact very rare, in the global petroleum industry considering the inherent geological, operational, and substantial economic risks associated with the business; yet we have been successful for more than 30 years as a Group of Companies, since our establishment in 1989.

The values which made the Group of Companies successful to date are even more important in such a business. I have always maintained that our team members are our most important asset. I truly believe solidarity, cooperation, honesty, integrity are our common values well cemented as an integral part of us. Insatiable thirst and inquisitiveness for deeper, wider, and new knowledge, for robust engineering, for good science, for thrifty management, for inventiveness, as well as our pride to belong to a very unique company such as ours, along with a formidably bright team spirit and desire to succeed, are the engines of our growth and sustainability.

At the same time, we belong to an increasingly fast-moving society, because of national and global reasons. We have led the local industry in several directions such as cleaning the environment in Mann Field and the entire project area, and closely working with our host communities. We are establishing best CSR practices everywhere we operate, even in advance of launching projects, such as in M&A-OSB. Earning our social license to operate is part of the core of our business. We are also closely monitoring and listening to national and global concerns on climate change, and acting responsibly in this respect. Our achievements are a testament of how we conduct business, with purposeful discipline and resilience in overcoming challenges.

Last but not least, we are winning, and will only win more, as and if we continue to work as a team, with humility, with respect for one another, and for society as a whole of which we are one of the engines. We have beaten incredible odds to get to where we are today. Let us take a pledge together to continue to fearlessly explore new horizons, actively push our limits, and persistently go the extra mile to make the impossible possible.



U Moe Myint
MPRL E&P Group of Companies



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Your Opinion : How do you Understand Business Sustainability and our Individual Roles in the Sustainability Journey?



Aye Maung Maung Aung
Assistant Planning & Production Engineering Manager
Planning & Production Engineering Department

Sustainability is becoming critical in all industries around the world with the objective to strike a balance between human development and the environment. Simply put, business sustainability is referred to as 3 Ps: Profit, People, and Planet.

At MPRL E&P, sustainability forms a core part of the Corporate Strategy which is to meet current needs as well as build a better life and achieve sustainable development for generations to come. We are focusing on implementing long-term plans for making a lasting positive impact in the areas of safety, gender equality, investing in human resource development, reducing waste, minimizing environmental footprint, corruption, business ethics, transparency, human rights and community development in our operations sites. With regard to our host communities in Mann Field, we are keen to ensure that they benefit from our presence in their area through our shared value-creation model which emphasizes improving their livelihoods through an agriculture and livestock development program, and expanding their livelihood opportunities through a

vocational education program. In addition, we are committed to developing community capacity to contribute to our CSR programs in infrastructures in Mann Field with a sense of ownership which will lead to sustainable local development.

At country level, in August 2018, the Myanmar government announced a framework for coordination and cooperation among public and private sectors throughout the country to ensure the sustainable development of the country, namely the Myanmar Sustainable Development Plan (2018-2030). While it champions the role of the private sector as the key driver of economic development and job creation, it communicates the government's priorities and opportunities for years to come, with which our goals can be aligned strategically. So I believe we as a business committed to sustainability will continue playing a vibrant role with regard to the country's and communities' sustainable development in the long-term. ■



K Thant Syn
Jr. HR Officer
Human Resources Department

From what I understand, business sustainability is a progressive process to ensure that the business itself is conducting ethically and responsibly for the environment and society in order to achieve positive results in the long-run.

Personally, I always think that our organization's approach to become a sustainable business is strong because we address the three triple-bottom-lines: environment, economics and society. Through the adoption of multiple measures to manage the environmental impacts in the production process, or the implementation of the CSR programs for the local communities in our project area, we ensure to obtain a social license to operate. At the center of these is the practice of transparently communicating our impacts and our values with the local communities in a timely and effective manner. When I was conducting an interview with candidates as an HR personnel responsible for recruitment and selection functions, I have heard them saying that they observe our company focuses a lot on the CSR programs. So I figure our CSR programs are, in an indirect way, promoting the company's brand and image.

Sustainability is a long journey and every single initiative is important for every one of us at the personal level. One small action of a person, a positive change in behavior or attitude, or making a commitment to hold yourself responsible with regard to sustainability. For example, reducing the use of single-use plastics in our everyday purchases can create a domino effect in the organization or in the communities to become part of the journey – if I can do it, you can do it too. The responsibility to take care of sustainability in our own hands lies with us, and with this understanding we can join in the efforts to maintain business or societal sustainability. ■

Insight!

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We are ready to make your stay livelier and more enjoyable with live music, DJ, outdoor cinema, cocktails and much more at our new Surf Point Restaurant & Bar !



Site Visits by the Senior Management and Executives to Mushroom Model Farming Project, Tomatoes and Chilies Plantations at Mann Field





Annual Community Meeting between Senior Management and Executives of MPRL E&P with the Communities around Mann Oil Field







7th Town Hall in Mann Field for the Year 2020







**Two Million Man-Hours without
a Lost Time Accident (LTA)
Appreciation Dinner at Mann Field**



Bringing Learning Club to Mann Field for the First Time

Thin Thandar Win
Junior Engineer (Mann Field)

As the name suggests, the Learning Club is a program the HR Department introduced to create a learning environment at the workplace where everyone can learn and share their knowledge, enhancing staff's general knowledge and interpersonal skills at both Yangon Office (MYO) and Mann Field (MFO).

The Learning Club is primarily organized by a group of staff members called the "Learning Club Organizing Team". The "Organizing Team" is responsible for brainstorming the topics, reviewing and choosing a final topic which is most-relevant and interesting to the staff through open discussions. Basically, the speaker of the selected topic can be an internal individual or an external inspirational personality, and the club invites a speaker every quarter. It has been organized twice in Yangon Office, but has yet to be organized in Mann Field.

The Mann Field Learning Club is set up by six members from the Technical Team including myself as the "Organizing Team" based on the crew change system. To ensure a successful event, every team member of the "Organizing Team" was assigned to definite duties – I was in charge of planning and budgeting for the event.

After holding several meetings – during which we conducted a staff survey to identify personal choices of the topics and selected the most voted topic – the first event of the MFO Learning Club was launched on January 11, 2020, by inviting U Than Tun who is the Consultant Geoscientist at the Geoscience Department of MPRI E&P. He talked about his "Life Experiences of Being A Black Gold Warrior" with the intention to share his experiences such as the lifestyle of oil field men in his days, insights into the oil and gas industry, and inspirational messages for younger generations. There were 45 attendees overall, and it was great to witness that every single one of them was eager to contribute to the discussion throughout the talk!

When the talk was over, we gathered feedback from the participants to help review the performance of the whole event as well as identify room for improvement in future. Although I used to help organize big events in my university days, managing a Learning Club was my very first experience in my career with lots of lessons learned and improvements in my interpersonal skills.

Here I would like to share some of the key points I noted from the talk:

- "People mostly don't appreciate time which does not cost anything at all. So, it is important to manage time effectively in life."
- "Life is not a sprint. It is a long run (marathon). So you have to hang on. And every one is encouraged to do their best in their professions."
- In order to help with self-motivation, having reading as a hobby is a must.

Personally, I believe the enthusiasm and synergy among both the participants and the "Organizing Team" plays an important role in completing the first MFO Learning Club with a bang. Standing on this success, we are planning to create an English conversation club for career development, according to the feedback, and we will invite an external speaker in next fiscal year as the second event of our MFO Learning Club "Organizing Team".

In conclusion, life-long learning is essential since everything we experience in life might be new and different in that we can always learn and share something out of it. I am certain that this team-based activity can boost up our self-confidence, creativity, knowledge and wisdom over time. ■



Development Operations Accelerate in Block A-6!

Doc Rock

Hurrah! Operations have accelerated in Block A-6. In short, as most of you know, the road is now clear to proceed with all the studies necessary to assess whether A-6 gas is commercial, from engineering and marketing perspectives to ultimately bring this gas to consumers.

Should you want to refresh your memory on how complex such a development of gas resources in ultra-deep waters is, please revert back to Issue 14 (29 March 2018) of Insight! **Why, what and how** are we to survey the theatre of operations of A-6 gas producing installations?

1. Why are we Surveying?

In a nutshell, as a reminder, all the A-6 gas producing installations will rest on the sea bottom and are distributed between **deepwaters** and **shallow waters** (fig. 1).

Deepwaters: Block A-6 gas will be extracted from sandstones, some 2-3 km below the sea bottom. The sea itself is more than 2-km deep in the area of future deep-sea installations. Pressures at these depths of water are more than 200 times the pressure in your rice cooker at work, the temperature is as cold as inside your fridge (not as chilly as in the freezer though). The producing wells will be flowing through **subsea trees** connected to a **gas flowline** to be installed on the seabed in deepwaters, then up the steep slope to the **gas processing platform** in shallow waters. The **subsea production control system** will supply each subsea tree with power to manipulate valves and with an anti-freeze liquid to avoid the valves to be frozen by ice caused by gas production.

Shallow Waters: A gas-processing platform will be installed on the sea shelf in about 100 m of water depth. The platform is made of a **jacket** resting on the sea bottom and of **topsides** fixed on the top of the jacket above water. The topsides are a very complex installation including in a nutshell:

- gas receiving, compressing, treating and flow metering facilities,
- electrical power generators,
- remote controls and remote maintenance installations of well-heads,
- installation to launch and receive robots (or pipeline wiper plugs, the so-called "pigs") to inspect and clean the inside of the pipelines,
- living and operations quarters and helideck.

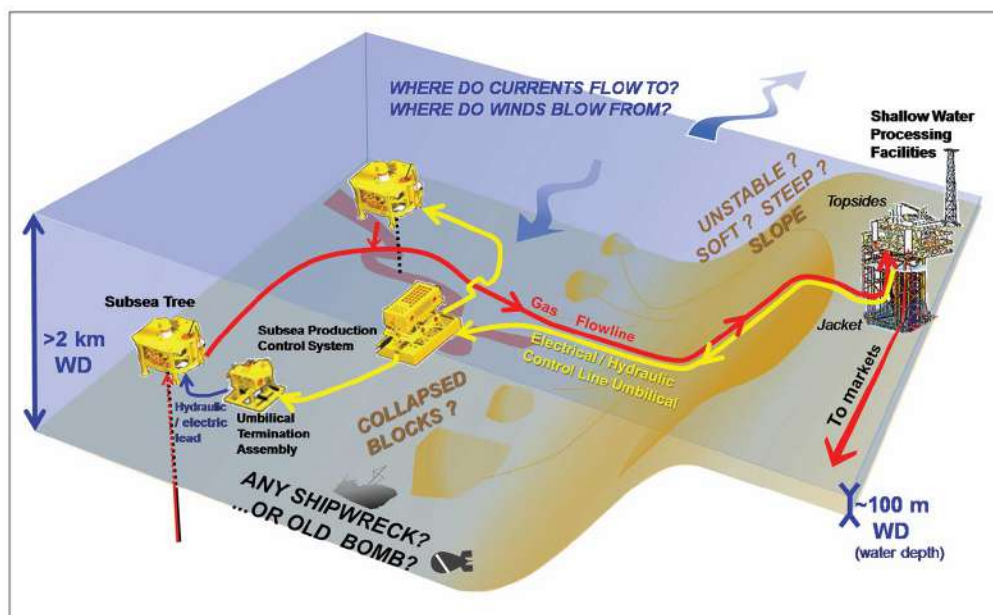


Fig. 1: Block A-6 gas producing installations and the main questions on surrounding sea bottom, sea and atmosphere

The platform will receive gas from deepwaters through a dedicated **gas flowline**. Meanwhile, the platform will send anti-freeze chemicals and power towards deepwaters through a complex set of tubes and cables wrapped in a conduit known as an **umbilical**. The umbilical and the flowline will run through the slope between shallow and deepwaters.

The jacket and topsides altogether weigh 35,000 tons (approximately, as the design is not yet finalized), about the weight of the whole fleet of 4,000 buses plying through Yangon every day. The jacket and the topsides will be constructed separately. The jacket will first be installed on the sea bottom. A special

--transport vessel will then float the topsides over the jacket before the two are assembled. This is a most-delicate job, needing seas to be as calm as possible.

2. What are we Surveying?

The surveys will allow the engineers to identify the **soundest location** for all the installations in shallow and deepwaters, and the **shortest while safest route** for pipelines and umbilical. The surveys will investigate the sea bottom, the column of waters and the atmosphere. Special attention will zoom in on the **slope** between deep and shallow waters. Block A-6 is located at the junction of two actually moving tectonic

plates; their relative movements have recently sprinkled the deep seas with huge blocks slumped from the slope up to shallow waters. How recently? Say a few thousand years ago, this morning after breakfast for geo-nutters. This slope is riddled with **scars** of those **slumps** of sediments collapsed towards deep seas (fig. 2).

Sea Bottom: The surface of the sea bottom, as well as the top few tens of meters, concerns engineers:

- How deep is the sea?
- How soft and smooth is the sea bottom?
- How flat or sloped is the sea bottom?

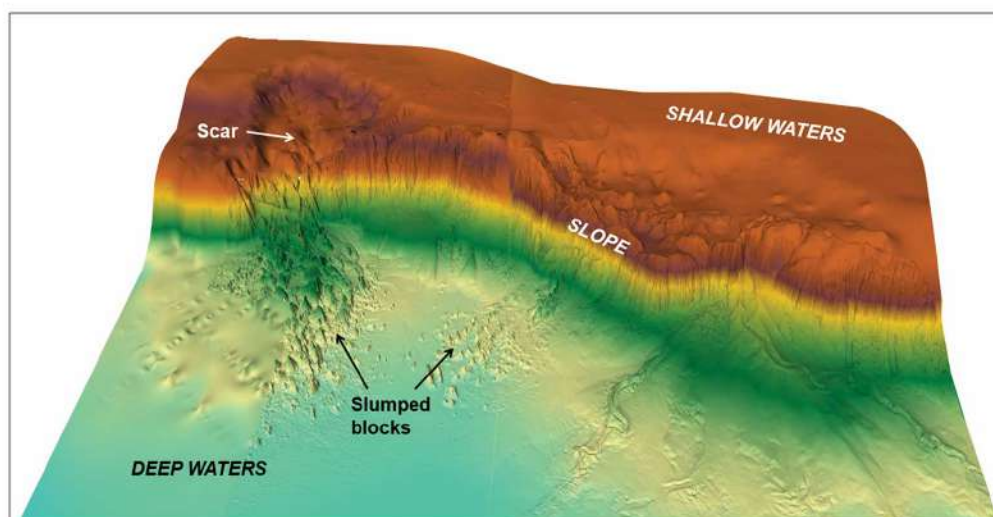


Fig. 2: The subsea landscape below the waters of Block A-6 area; the image covers about 60 miles in width; some of these blocks are protruding from the sea bottom at three times the height of the Shwedagon Pagoda.

- What kind of sediments make up the first 50 meters below the sea bottom? How old are these sediments? Are there water or gas-soaked sand bodies that may cause installations to collapse?
- Are there any obstacles from man made obstacles (shipwrecks, communication cables, unexploded bombs from prior wars, etc) or nature (slumped blocks, reefs, faults, etc)?
- Slope-specific questions: how steep and stable is the slope? How soft are the sediments making up the slope? Is the slope likely to collapse during the life of the project? Previous seismic surveys already tell us that this slope between the shallow and deepwaters is steep, about as steep as the slope of the dyke damming the Inya Lake that some of you can see from your desks.

The surveys to answer all above questions are known as **Geophysical & Geotechnical Surveys** (or "Geo-Geo" Surveys).

Waters & Atmosphere: This concern is to do with the weather and sea currents conditions in which installations will proceed. How will the platform design withstand worst case conditions, such as cyclones? It's a really bad day when you wake up to find your platform toppled. At this moment, it is believed that the monsoon period between May and October is unsuitable for installing the topsides over the jacket of the processing platform. The high swell and waves prevailing during monsoon are also deemed unfit for laying the various pipelines of the project. These weather and sea conditions interest meteorologists and oceanographers, who will run a Metocean Survey to answer the following questions:

- How fast are currents at the surface and all through the water column? Where do they flow to and when do they flow during the day (such as due to the tide) within a week and/or month?
- What are the sea temperatures and salinity throughout the water column?
- How high are the waves throughout the year? What are the distance and time between the crests of wave (the so-called "period")? Where do they come from?
- What are the wind speeds and direction all-year round?
- How much is the atmospheric pressure in relation to the wind, waves and currents?

The answers of the **Metocean Survey** will determine the conditions and when is the best time of the year to install the pipelines and the topsides of the gas processing platform on top of its jacket. The Metocean Survey will provide data required for

the design of robust facilities and will also indicate if sea currents are to challenge the laying of the pipelines.

3. How are we Surveying?

3.1. The Geo-Geo Surveys

Several surveys are necessary to answer all above questions, depending on the location. The sea bottom will be investigated through a **Geophysical Survey**, which will run until mid-April, and which will be fol-

lowed by a **Geotechnical Survey** year, a location for the gas processing shallow-water platform. This location will also depend on an ideal pipeline route between the subsea production installations and the platform. Another Geotechnical Survey will investigate, in more detail towards late 2020, the soil on which the jacket of the gas processing platform will rest and the route of the pipelines.

The Geophysical Survey relies on remote sensing, i.e. we are collecting acoustic and seismic signals that are

touch the rock. By contrast the **Geotechnical Survey** touches the rock, but gives only punctual results, representative of a very small area. What occurs between two sites of geotechnical rock sampling is covered by the Geophysical Survey. It is the integration of both surveys that will fully answer the questions of above section.

All instruments of the Geo-Geo Surveys are embarked into a dedicated **survey vessel**. The workhorse of the Geophysical Survey is the **Auton-**

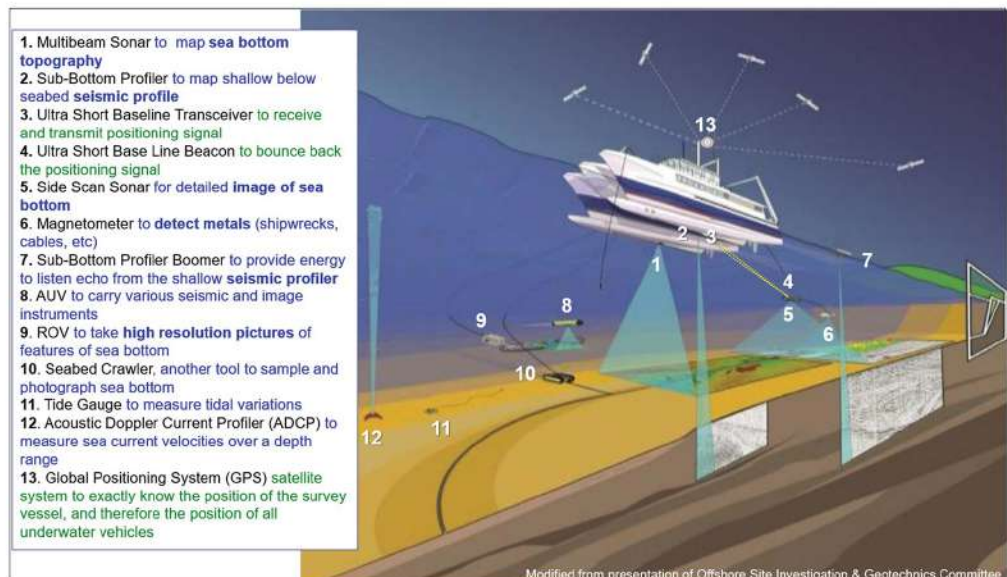


Fig. 3: Set-up of a Geophysical Survey; in green the positioning instruments to know exactly where the surveying instruments are; please note that this image is not a representation of all the instruments presently being deployed by the ongoing survey

lowed by a **Geotechnical Survey** to last until mid-May, which includes cutting cores of soil samples from the seabed to determine soil strength.

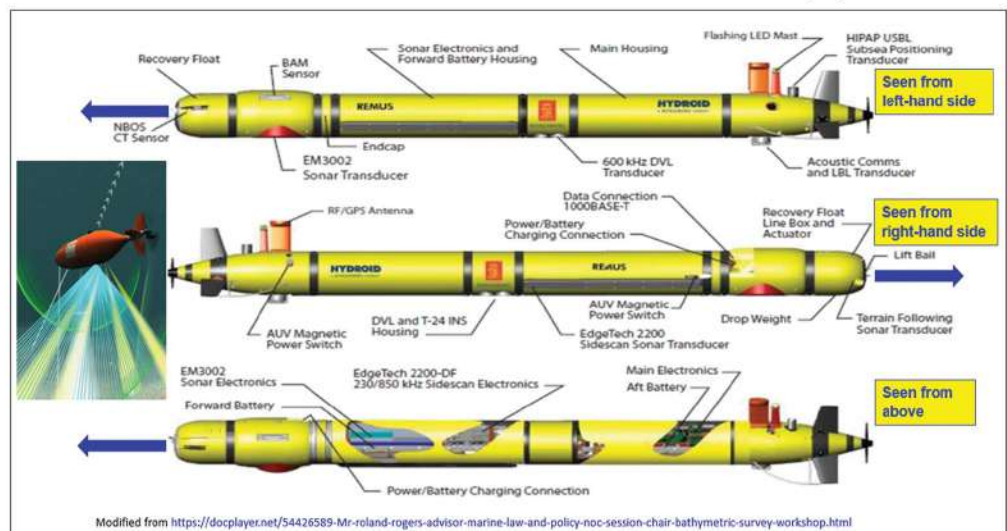
At the end of these surveys, after analyses of the rocks and integrating all the processed and interpreted geophysical data, we will be able to propose, towards the end of this

thereafter processed to get rid of various noises, before interpreting these signals to draw an image of the sea bottom and its immediate underlying layers. By contrast, the Geotechnical Survey samples the rocks by coring these underlying layers.

The Geophysical Survey has the advantage of covering large swaths of ground but does not physically

omous Underwater Vehicle ("AUV", fig. 4), which carries quite a few instruments and is remotely controlled from the survey vessel 24-hours-a-day, seven-days-a-week, except for maintenance.

Fig. 4: An Autonomous Underwater Vehicle (AUV); length is typically 4-8 m and weight 1-2 metric tons; the inset shows an AUV very similar to the one surveying A-6 waters



Modified from <https://docplayer.net/54426589-Mr-roland-rogers-advisor-marine-law-and-policy-noc-session-chair-bathymetric-survey-workshop.html>

Taking Actions towards Sustainability: 4th Submission of UNGC Communication on Progress Report for the Year 2019-2020

Thae Aei Khinn Zaw

MPRL E&P focuses on the importance of Corporate Social Responsibility (CSR) as it triggers profound impacts on operating principles, and guides ways of conducting business ethically, and engaging our stakeholders transparently. Our CSR strategy is about creating value for people, communities, and increasing the positive impact of our business activities.

With that strategy in mind, MPRL E&P became one of the members of the United Nations Global Compact as a Signatory Member since 2016 and has been providing details of our actions to continuously improve the integration of the Global Compact and its principles into our business strategy, culture, and daily operations in line with Sustainable Development Goals by submitting annual Communication on Progress (CoP) report.

In February, MPRL E&P reaffirms its support of the Ten Principles of the United Nations Global Compact by the submission of 4th UNGC Communication on Progress (CoP) report for the period from February 2019 to February 2020 onto the websites of UNGC and MPRL E&P by ensuring that MPRL E&P is doing its business operations in-line with universal principles on human rights, labor, environment, and anti-corruption. ■



MPRL E&P Participated as First Class Technical and Financial Sponsor in Myanmar Petroleum Technology Conference-2020 held at Research Center, University of Yangon, Myanmar from 14 to 15 February 2020





THINKING ALOUD with

Dr. Nyi Win
Site Doctor, Mann Field

Can you explain how the mobile clinic idea for Mann Field communities has started out? Why was this initiative initiated in the first place?

The mobile clinic idea started out with the CSR Team to deliver primary healthcare services in Mann Field Communities and focuses on children, senior citizens and people in low-income areas who require medical care on a regular basis and who would otherwise not seek medical care.

How does the mobile clinic run in Mann Field? Who are involved in successfully running this initiative? What were the key barriers for patients in Mann Field that the mobile clinic program helps overcome?

The mobile clinic runs in Chin Taung, Kyar Kan, Lay Eain Tan and Let Pan Ta Pin villages around the Mann Field for 2 hours once a week at each place on Mondays, Tuesdays, Thursdays and Fridays regularly. Anyone from the communities can visit them at any place according to their requirements.

Those involved in successfully running the clinic includes the whole CSR Team who obtained the approval from the Health Department by arranging the locations, preparing the clinics with the necessary facilities, and supervising the mobile clinic. Furthermore, those involved are also healthcare assistants and community volunteers who manage day-to-day operations of the mobile clinic so that patients can get treatment in an orderly manner and also the M&A Mann Field team who purchase the necessary medical supplies in time and transport them to the site clinics in a timely manner.

The key barriers for patients in Mann Field that the mobile clinic program helps overcome are a lack of adequate income to get proper treat-

ment in Minbu, the travel distance to Minbu hospitals and clinics, and transportation difficulties.

What are the objectives of this neighborhood clinic and can you reflect on the satisfaction surveys completed over these (two) years on an annual basis?

The objectives of this neighborhood clinic are to deliver primary health care services in Mann Field Communities: children and senior citizens, those who require medical care on a regular long term basis, and poor people who would otherwise not seek medical care.

According to these annual surveys, we have understood that most patients are satisfied with the relationship and medical care provided by the mobile clinic, that they got treated, and find the location and clinic opening hours suitable for them and also that they will come again.

Can you describe a regular patient at the clinic? How has their health been improving? What is the reason (do you think) that they choose to come to this clinic instead of going to town for health care?

A regular patient at the clinic is typically an elderly person who is having difficulties in standing up and walking due to chronic arthritis of the knees and ankles, who also have shoulder involvement as well leading to difficulty in moving the upper limbs. Being under treatment lessens the suffering and improves mobility and quality of life although the symptoms tend to recur as it is a chronic disorder.

Patients choose to come to this clinic instead of going to town for healthcare is due to the combination of many factors that include the ease of attending the mobile clinic (both in distance and time), the familiar setting of being at their



Damaryon, helpful and polite volunteers, improvements they get with the treatment, and getting a service which even the Health Department cannot provide locally.

How would you like to talk about your contribution to this mobile clinic program as a camp doctor? Do you have any challenges or experiences that you would like to share with us here?

Taking part in the mobile clinic program is an emotionally rewarding work for me to be able to see the responses and results of treating the patients. It is a good thing to give primary health care to the community in which we work in as it builds their trust and friendship and it will smooth out any grievances they have. The main challenge is not being able to take care of every health problem to the satisfaction of everyone due to the limitations that we have. ■



Our Community: Kywe Cha Village

Zin Mar Myint, Community Investment Field Coordinator

Kywe Cha Village is one of the surrounding 14 communities in Mann Field, inhabited by government staff and those who engage in local business activities.

MPRL E&P has been implementing community initiatives in this village since 2014 including improving community infrastructure (valued at MMK 4,159,740) such as providing a water collection tank, a water filtration unit and school furniture. Vocational courses included trainings such as making pots, food, and soap. Other vocational courses were sewing, horticulture for women and youth, and farming quality Chickpea

seeds. In addition, the company supported a disaster-relief fund worth MMK 32,413,675 to affected households in Mann Field including Kywe Cha during 2015 and 2018. All these initiatives have aimed at developing their livelihoods and improving living standards.



U Thein Naing Community Volunteer



I am 46 years old and my livelihood is farming. I became a community volunteer to coordinate in MPRL E&P's CSR initiatives in 2014, in accordance with the support of my community and recruitment of the company. I am very pleased with my role in the Operational Grievance Mechanism (OGM) with which community needs and concerns are effectively resolved. Sometimes I lead discussions with my fellow villagers in implementation of community investment initiatives alongside the Village Development Committee (VDC). Over the years, MPRL E&P has supported me with continuous capacity-building trainings to effectively perform my responsibilities. I truly believe the company's CSR initiatives in Mann Field are very important and have contributed to the general wellbeing of the community. ■

Empowering Community Smallholders for Sustainable Agriculture

Subsistence farmers from the surrounding communities in Mann Field are, slowly but surely, acquiring new resources and adopting modern techniques to grow their food staples and cash crops, boosting productivity and income at the same time.

Thal Sandy Tun

There are two major issues for many smallholder farmers in Mann Field which MPRL E&P's agricultural initiatives have been focusing on: they are struggling with access and availability of quality seeds whilst their traditional practice of broadcasting seeds or random transplanting proves, both costly and low-yield, like some of their counterparts in other areas of the country in which agriculture is the backbone of the economy.

Quality seeds key to successful crop production

The low-quality seed problem is suggested to be rooted in improper storage methods which leads to damage and losses, with most of the smallholders in Mann Field barely able to save enough seeds from one harvest to another growing season. As a result, when growing season comes, they have to buy seeds at double the price, which increases their input cost.

MPRL E&P's Livelihood Development Program introduced in the fiscal year 2018-2019 the idea of seed loaning with a 25% interest per seed bag for chickpeas and 1 tin (16 Pyi) for every 3 kg of sunflower seeds loaned to these farmers. This allows them to have access to quality seeds at zero cost while MPRL E&P can extend the access as the amount of quality seeds multiplies after each harvest.

With the technical support of the Department of Agriculture (Minbu), the seed loaning initiative now covers chickpea and sunflower growers from all the 14 surrounding communities. Based on the success rate, a seed bank that is run by farmers themselves will be set up to grow seed collection and increase varieties in coming months.



Horticulture for Vegetable Growers

Daw San May, a 61-year-old vegetable farmer from Kyar Kan Village, explained, "I used the traditional method of broadcast seeding to grow tomatoes. As a result, the plants grew unevenly in my pocket of land, and there were other challenges such as high labor costs associated with clearing weeds, labor scarcity, and heavy rainfall."

Her experience was echoed by U Aung San Myint, a farmer from Man Gyo Village, who said he applied the same method to grow tomatoes and the cost to clear weeds from the plantation was as much as 6 lakhs, no meager amount.

Both of these farmers attended a MPRL E&P-supported two-day Horticulture training in July 2019 by a certified technician from the East-West Seed, an award-winning organization serving farmers. While some of you may be familiar what horticulture is, this hands-on training on horticulture for a group of 41 attending smallholders underscored modern science-based techniques on growing high-value tomatoes and chilies with optimized yields and sustainability of local ecosystems.



Putting their newly-acquired knowledge to use, both have seen the use of plastic mulch or plasticulture leads to a reduction in input cost as well as effects of changes in temperature, rainfall and wind to the crops.

Daw San May said, "The black color of the planting beds absorbs perspirations, and therefore, the irrigation time is reduced from once in a week to once in ten days. Even when it rains, the planting beds would not collapse, and the roots do not become rotten."

U Aung San Myint added, "While the cost to set up the plastic mulch is just over MMK 60,000, the cost to clear weeds from the plantation with herbicides has been reduced to one tenth." He even has observed that weeds no longer grow in the area where the plastic mulch has been set down, and as the method likens organic farming, he believes the vegetables produced will be good for human health.

Daw San May said currently her return on investment is between 7 lakhs to 10 lakhs after capitalizing 3 lakhs while U Aung Say Myint disclosed the total expenditures for the farm was 7 lakhs and he has already earned over 30 lakhs in return. Both are hopeful—Daw San May will grow a full acre of tomatoes next season and U Aung San Myint expects another 5 lakhs in coming month.

Unlocking the Potential of Smallholders

Studies indicate there are many diverse environmental impacts from unsustainable agricultural practices, including deforestation, soil degradation and greenhouse gas emissions. The Food and Agriculture Organization (FAO) said that one of the paths toward sustainable food and nutrition security for all human beings on earth is through the local production systems in which smallholder farmers play an important role through their subsistence farming. No doubt by championing these local farmers with eco-friendly agricultural techniques, lasting change towards their livelihoods and the environment will come into being. ■





MPRL E&P organized Health Talk, “Women & Cancer”, delivered by Associate Professor Dr. Si Lay Khaing in celebration of International Women’s Day 2020 for all MPRL E&P’s GoCs Female Staff Members



Final Year Petroleum Engineering Students from Yangon Technological University on Internship Program at Mann Field and Yangon Office (January to March 2020)



Efficiency by Doing Things Right, Effectiveness by Doing the Right Things

Monitoring and Evaluating Organizational Performance

Yin Mon Aye

Why do we need to foster a culture of self-reflection in our workplace? Sometimes we come up with a bunch of ideas, which we put into actions that may seem like an accomplishment. However, it is important to exercise self-reflection and criticism, on the execution of our ideas, to assess missed opportunities and potential risks. We must improve our performance, expand our thinking and share our experience both good and bad. The Performance Review Workshops are an opportunity to deliberate what our progressive work means to us and our business.

This practice – of reflecting, monitoring and evaluating organizational performance – is not new to the company, as MPRL E&P organizes its Performance Review Workshop twice a year

times, and reflected on lessons learned. The workshop also overviewed current business conditions, and identified strengths, weaknesses, potential risks, and future opportunities. Respective departments then established a list of strategic plans as a business performance improvement framework based on the results. As a new initiative this year, an additional workshop was organized with working-level staff members from each department to exercise, and familiarize, reflection on our own performances and implement improvements.

MPRL E&P recently completed its Year-end Performance Review Workshop to analyze the efficiency, effectiveness, and impacts against its strategic plans and overall organizational performance before wrapping up a financial year.

On February 19, 2020, the company organized the workshop at Rosewood Yangon, with total 24 participants. The first-half of the workshop tracked and checked the progress and effectiveness of the strategic framework, assessing what has been accomplished. The second-half of the workshop agenda was reviewing the yearly organizational performance against corporate goals. The evaluation is goal-based. Each department compared their team's actual results to targeted Key Performance Indicators (KPIs), and determined overall performances to assess target completion. Good practices, challenges, and lessons learned are communicated and reported so they can be leveraged into developing next year's work programs and setting goals. ■



with the respective Heads of Department (HoDs) and Assistant HoDs. The workshops are accommodated by the Corporate Affairs Department to efficiently review and facilitate active discussions to achieve the desired outputs. Agendas are developed as functional and straightforward clarity. The workshop is facilitated in a climate of transparency, cooperation and participation. Workshop feedback is diverse and inclusive – solicited from all positions and departments within the organization.

In November 2019, the Mid-year Reflection Workshop focused on its periodically reviewed its 6-month performance, defined good prac-



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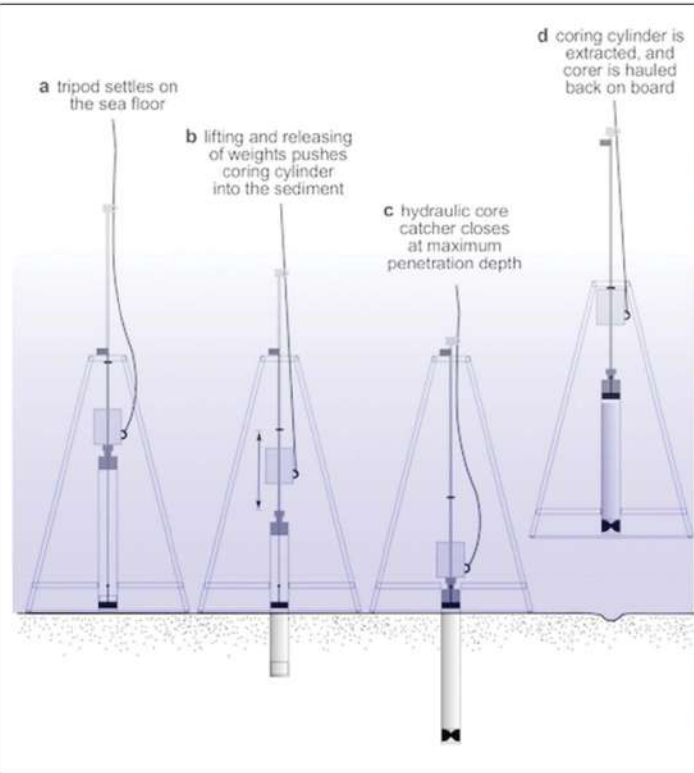
Table 1 summarizes the questions that the Geo-Geo Surveys are to answer with which instruments. This table does not include the complex system of positioning that informs the crew where the AUV is under water relative to the vessel at the surface of the sea; the positioning system includes beacons attached to the AUV and to the survey vessel, which in turns is in connection with a network of satellites.

Questions	Location of investigation	Instruments	Abbreviations	Remarks
How deep is sea bottom?	Sea Bottom	Single-Beam Echo Sounder	SBES	Carried on board vessel
How soft and smooth is sea bottom?		Multibeam echo sounder	MBES	Carried by AUV
		Side scan sonar	SSS	
		Piston corer		Geotechnical survey
How flat or sloped?	Top 50 m of sediments	Multibeam echo sounder	MBES	Carried by AUV
		Side scan sonar	SSS	
What kind of sediments in top 50 meters? What is their age?		Sub-bottom profiler	SBP	Carried by AUV
		Piston corer		Geotechnical survey
Any water or gas-soaked sediments?	Sea Bottom	Sub-bottom profiler	SBP	Carried by AUV
		Piston corer		Geotechnical survey
Any skimped blocks, reefs, faults?		Sub-bottom profiler	SBP	Carried by AUV
		Camera		
Any shipwrecks, cables?	Top 50 m of sediments	Magnetometer & Camera		Carried by AUV
		Single-Beam Echo Sounder	SBES	Carried on board vessel
How steep is the slope?		Sub-bottom profiler	SBP	Carried by AUV
How stable is the slope?		Sound Velocity Profiler	SVP	Carried on board vessel
Temperature & Salinity of the seawater vs depth	Throughout water column	probes		Part of Metocean survey

Table 1: Questions vs investigating instruments

The main instrument of the Geotechnical Survey is a piston-corer to sample under more than 2 km of water and bring back cores of 6m to 15 m in length of sediments underlying the sea-bottom (fig. 5). The vessel will embark two types: a multi-piston corer to sample the sea bottom at several locations without recovering the tool and bring back short cores, and a giant piston corer able to sample long cores at special locations such as the vicinity of the gas processing platform in shallow waters.

Fig. 5: Piston-coring to sample the sea bottom during the Geotechnical Survey; the instrument to the right is a multi-corer, size is about 10 m high allowing to sample 5-m long cores



3.2. The Metocean Survey

Waves, currents and atmosphere need to be monitored for a full year-round by special buoys (fig. 6). These buoys have just been dropped and anchored in five locations between the area of the sub-sea production system, the broad area of the shallow water gas processing platform and along the presumed route between this platform and Yadana Field area where the gas is to reach a junction to export markets.

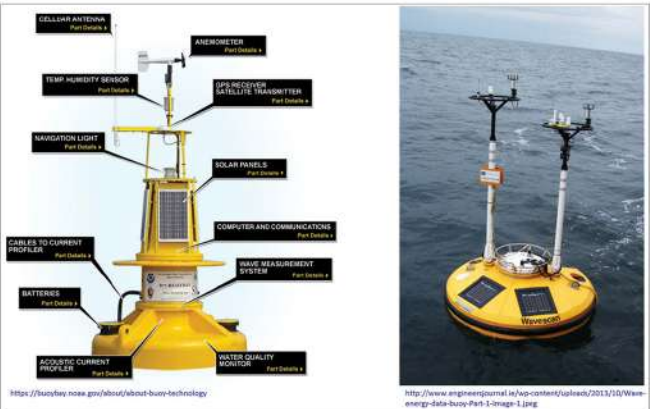


Fig. 6: A Metocean buoy of the type to be used in the weather and sea surveys of A-6; such a buoy is typically 2-4 m high with a weight of a small car

Every three months a small vessel will inspect the site of the buoys to check for conditions and download data, unless these buoys are equipped to talk to satellites.

That's it for now, folks! Hope you enjoyed reading this snippet; if you are interested to know more, Wikipedia is as usual one of the most accessible source: https://en.wikipedia.org/wiki/Offshore_geotechnical_engineering . Meanwhile, may the fun go on!











Pioneering Ultra-Deepwater Production Project

A Retired Senior Geoscientist

Shwe Gas Field has proved the existence of natural gas deposits in the western offshore region of Myanmar. Natural resources are a blessing only for those who deserve it, and hence, it is Shwe Field, the third project in the Myanmar offshore region, which opened a new chapter in the history of oil and gas resources located in the western offshore region in 2004.

Sedimentary rocks deposited from the land in the north and east profusely populate the western offshore region, and give rise to natural gas traps under the Pliocene sandstones and Miocene sandstones which deposited over a period of 5 million to 10 million years. On land, the presence of petroleum deposits inside ancient Miocene sandstones, Oligocene sandstones, and Eocene sandstones has been known since the old days, and oil from shallow oil fields in the Yanbye Island (Ramree Island) on the western coast keeps flowing until today. Once the rock formation enters the sea, the deeper the water depth, so is the petroleum reservoir. The water depth in the western offshore region can range between 2,000 meters to 2,500 meters, and there have been further efforts to identify the potential of natural gas reservoirs there.

tion Compensation Contract (PCC) for Mann Field Enhanced Oil Recovery (EOR) Project since 1996, and as a result of its success there, the company reinvested in offshore area. MPRL E&P signed a Production Sharing Contract (PSC) in January 2007 on the western Ayeyarwady offshore Block A-6. Initially, MPRL E&P proposed either block A-5 or A-7, but it was awarded with Block A-6 on which there was few past exploration data and public interest. Nevertheless, MPRL E&P pressed ahead with its oil and gas exploration efforts at the block, and since 2007 when the PSC was signed, the company has conducted geological surveys extensively for four times along the coast, and in 2009 a 2D seismic survey covering an area of 1,955 kilometers was performed. In 2010, based on the results of the studies, another 3D seismic survey covering an area of 554 square kilometers was run, and geological/geophysical data were examined by experts.

MPRL E&P invested 100 percent capitals at its own sole stakes as a Myanmar National led company. In 2012, the company drilled the shallow water Pyi Thar-1 wildcat on its own risk. Pyi Thar (1-ST) was drilled up to a depth of 4,585 feet (1,398 meters) at the water

risks by the Myanmar National led MPRL E&P, brought about the interest of IOCs.

On the basis of MPRL E&P's studies, the prospect of deep-water region of Block A-6 was widely recognized. Australia-based Woodside Energy, with deep-water exploration expertise, farmed-in in 2013 by acquiring participating interests of 50 % in the block. In order to identify prospect in the deep-water part of the block, 3D seismic surveys were performed. Based on these surveys, another potential traps of oil and gas at the zone of the water depth of around 2,000 meters were detected. However, in order to confirm it, an ultra-deepwater well had to be drilled and such a well can cost hundreds of millions of dollars. In 2015, another deep-water exploration expert Total E&P joined hands, and as a result, MPRL E&P secured partnerships with well-experienced IOCs. With participating interests of Woodside (40%), Total E&P (40%), and the block operator MPRL E&P (20%), the exploration efforts continued.

Hence, the exploration well Shwe Yee Htun-1 was spudded on 27 November 2015. With the ultra-deepwater drilling vessel Transocean Drill Ship Deepwater Millennium, the well was drilled at the water depth of 6,660 feet (2,030 meters), and 108 feet (33 meters) of net gas pay thickness was discovered. Gas samples were collected and tested to officially confirm the commercially viable gas discoveries on 4 January 2016, Myanmar's Independence Day. The well was successfully drilled to the depth of 17,408 feet (5,306 meters).

The third exploration well Pyi Thit-1 was spudded in June 2017 at the water depth of 6,565 feet (2,001 meters), approximately 90 km northwest from Patheingyi, Ayeyarwady Region. The well was drilled up to a depth of 14,993 feet (4,570 meters), and according to the data evaluation results, 118 feet (36 meters) of net gas pay was encountered. The well produced about 50 MMscf of natural gas per day during the production tests.

Another exploration well Pyi Thar Yar-1 was spudded in August 2017 again and another gas discovery was successively made. The number of submarine channels which have the potential to hold natural gas deposits in the Block A-6 was found to be about 14 at present. Exploring all these channels means spending millions of dollars and taking years to explore. The exploration region is the deepest part of the ocean in East Asia and Pacific region, resulting in an extremely risky enterprise for the company.

Nevertheless, commercial viability of the block had to be confirmed, and the fifth well, Shwe Yee Htun-2, was spudded on 20 July 2018, about 60 miles northwest of Patheingyi, Ayeyarwady Region. It was drilled at the water depth of 7,628 feet (2,325 meters) to a depth of 15,912 feet (4,850 meters).

The evaluation of the data from the well indicated the presence of 135 feet (41 meters) of net gas pay thickness. This exceeded the company's prior expectation, and the well flowed about 53 MMscf of natural gas per day during

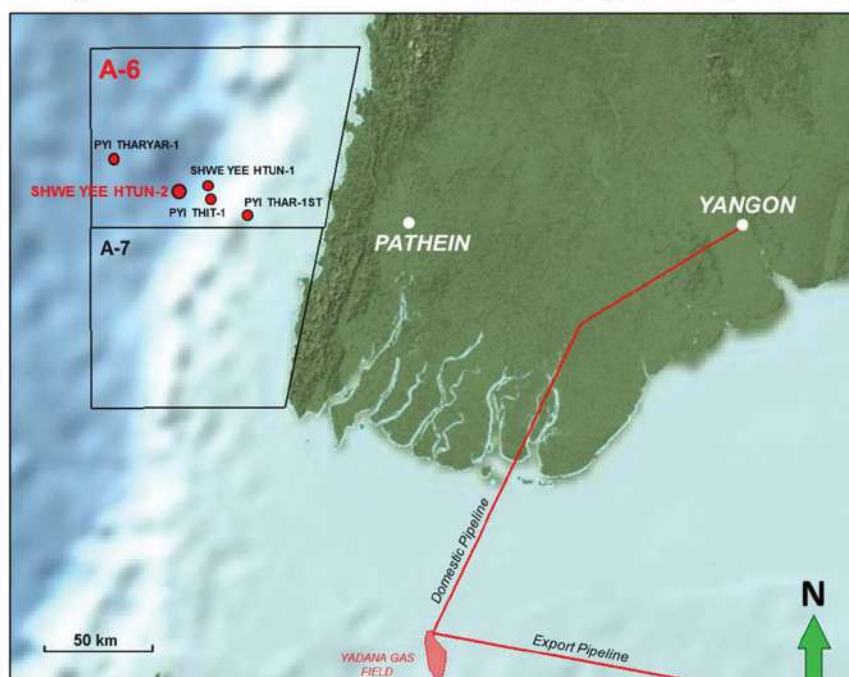


Figure 1: Location of Block A-6

In the offshore region, a total of 51 blocks have been formed for oil and gas exploration, and based on the country's geological features, the blocks have been divided into shallow ones and deep-water ones. Also they have been named accordingly, and International Oil Companies (IOC) have secured rights to explore these blocks under different Production Sharing Contracts (PSC). At present, there are four production projects taking place at 8 blocks, and respective operators are conducting exploration works at another 21 blocks.

MPRL E&P has partnered with Myanmar Oil and Gas Enterprise (MOGE) through a Produc-

tion Compensation Contract (PCC) for Mann Field Enhanced Oil Recovery (EOR) Project since 1996, and as a result of its success there, the company reinvested in offshore area.

At the same time, with this discovery, the previously-held assumption by geologists that there could be no gas-bearing reservoir in the Block A-6 was automatically nullified. By confirming there is a channel system flowing from east to west, MPRL E&P set off a new interesting future that lies with unlocking the prospectivity of the western offshore region in Myanmar. The nature of oil and gas industry is all about taking risks, and the success of Pyi Thar (1-ST), which is the result of taking sole



Figure 2: Well Shwe Yee Htun-2 at Block A-6

the production tests. Therefore, the commercially viable gas discoveries were made at the two submarine channels out of fourteen.

The First Ultra-Deepwater Project

It is both interesting and exciting when we look at the phenomenon of the Myanmar western offshore region, especially, with regard to the extraordinary challenges it has posed to our ultra-deepwater exploration efforts. The discovery of Shwe Field in the northern part of the western offshore region indicated that sedimentary sandstones which flowed from the north were trapped there. This is different from the way natural gas was trapped at the Block A-6. In the Block A-6, natural gas was discovered in the sedimentary sandstones which flowed from east to west. In other words, the Block A-6 indicated natural gas deposits in sedimentary sandstones that flowed from the current Ayeyarwady river channels over a geological time span. The identification of Paleo Ayeyarwady System also meant finding of a new petroleum play system for scientists/experts.

Natural gas production from the Block A-6 in Myanmar will happen at the water depth of

around 2,000 meters, and it has to be recorded as the first history-making ultra-deepwater project in the country. Globally, there are only 16 such gas producing projects, and thus the Block A-6 will become a remarkable project for the Myanmar offshore natural gas upstream industry. In this regard, there are several challenges in terms of both technical and operational, and in order to push ahead with the timeline, an enormous amount of manpower and financial resources will be needed.

As Myanmar's energy demands keep growing, only by exploiting our own resources can we produce affordable energy to fulfil these demands. Especially, electricity consumption is growing 12 % on a yearly basis, and natural gas is a second energy source for electricity generation after hydropower. Therefore, MPRL E&P, Total E&P, and Woodside Energy discussed how to expedite development and production efforts at the block. Ultra-deepwater development costs billions of dollars, and the most viable option has to be identified. In this regard, governmental support is of paramount importance.

At present, 1,800 MMscf of natural gas per day is produced from the four offshore projects in

Myanmar. Out of which only 400 MMscf is used for the country, and 1,400 MMscf is exported. Myanmar is one of the top natural gas exporters in the South East Asia through the gas pipeline. Thailand, especially, depends heavily on Myanmar gas for its energy needs. China has shown an interest in Myanmar for fulfilling its future energy needs and exploiting Myanmar's geostrategic role. India also wants to secure natural gas from Myanmar. In other words, Myanmar is an important country regionally for these three countries.

As the natural gas production from the current offshore fields decline, the production from the Block A-6 can be leveraged to fulfil both domestic needs and export demands to support the national economy. The offshore Block A-6, which started from Pyi Thar (1-ST) wildcat drilled by the Myanmar National led MPRL E&P, will serve as the fifth natural gas project after Yadana, Yetagun, Shwe and Zawtika. What's more, it will arise as the first ultra-deepwater natural gas production project in the South East Asia Region. ■

The above article by a retired senior geoscientist was published in *The Global New Light of Myanmar* on 22 December 2019.

The Way Forward of Block A-6 Development Project:

Meanwhile, Block A-6 is certainly not dormant. MPRL E&P along with its joint-venture partners of Block A-6 and the Myanmar Government signed agreements last December which allows for this unique project to be economically viable. The JV partners are presently carrying out many engineering studies to decide on the best solution to produce this gas in challenging ultra-deep water and soil conditions.

A special vessel is presently surveying the seabed of Block A-6 above the zone of the producing installations, to ensure the soil is firm, the slopes between deep and shallow waters are stable, and the sea bottom free of obstacles (see the article on "Operations accelerate in Block A-6 !"). The results of all these engineering studies will decide on which solution would best ensure the A-6 gas is produced safely, efficiently and economically.

By early in the second half of this year 2020, the A-6 joint venture will engage in all detailed engineering studies, the so-called Front-End Engineering Design (FEED). By the middle of next year, the joint-venture and the Government will agree on how to develop the field, technically and economically. Block A-6 Development Project will then enter its Development and Production Phase. Discussions are already engaged with potential clients, not the least the Government of the country, to ensure that the A-6 gas timely provides at the right location, enough power to generate more electricity for the sustained growth of the economy and the wellbeing of the people of Myanmar.

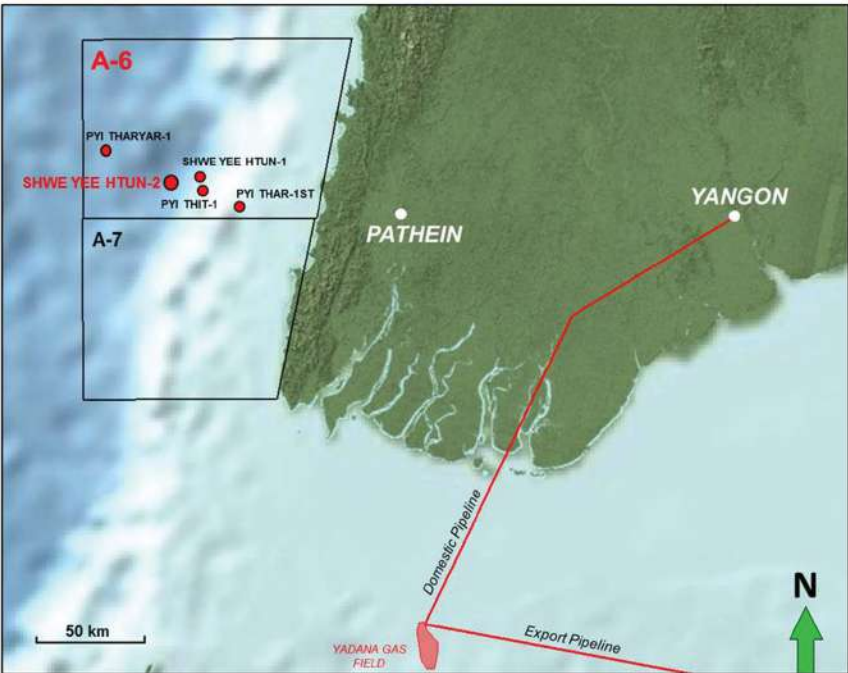
ပထမဆုံးကမ်းလွန်ရေနက်ပိုင်းထုတ်လုပ်မှုစီမံကိန်း

အငြိမ်းစားရန်ပညာရှင်တစ်ဦး

မြန်မာပြည်အနောက်ဘက်ကမ်းလွန်ပင်လယ်ပြင် (West Myanmar Offshore) အောက်တွင်သဘာဝဓာတ်ငွေ့သယ်စာတမျှားအိုင်အောင်နေမှုကို ရွှေသဘာဝဓာတ်ငွေ့သိုက်က သက်သေပြခဲ့ပြီးဖြစ်ပါသည်။ သယ်စာတမျှားသည် ထိုက်သည့်သဘာဝဓာတ်ငွေ့ရှိသောဆူလာဘတ်တစ်ခုဖြစ်ပေရာ၊ ယခင်နှစ်ပေါင်းများစွာက အနောက်ဘက်ကမ်းလွန်ဒေသ၏ရေနံသယ်စာတသိုင်းကြောင်းကို ၂၀၀၄ ခုနှစ်တွင် မြန်မာ့ကမ်းလွန်၏တတိယမြောက်ဖြစ်သော ရွှေစီမံကိန်းမှစာမျက်နှာသစ်ဖွင့်လှစ်ပြသနိုင်ခဲ့ပါသည်။

မြောက်ဘက်နှင့်အရှေ့ဘက်ကမ်းမြေထုများဆီမှပိုချလာသည့်အနည်ကျကျောက်လွှာများမှာ အနောက်ဘက်ကမ်းလွန်ပင်လယ်ပြင်တွင်ထွက်ပေါ်နေပြီး လွန်ခဲ့သောနှစ်ပေါင်း (၅) သန်း မှ (၁၀) သန်းခန့်အတွင်းအနည်ပိုချခဲ့သည်။ ပလိုင်းဆိုင်ဆင်း (Pliocene) နှင့် မိုင်းဆိုင်ဆင်း (Miocene) သဲကျောက်လွှာများတွင်သဘာဝဓာတ်ငွေ့သိုက်များကိုဖြစ်ပေါ်စေခဲ့ပါသည်။ ကုန်းတွင်းပိုင်းတွင်လည်း သက်တမ်းရှည်ဆိုင်ဆင်း (Miocene)၊ အော်လီဂိုဆင်း (Oligocene)၊ အီယိုဆင်း (Eocene) ကျောက်လွှာများတွင်သဘာဝဓာတ်ငွေ့နှင့်ရေနံတည်ရှိမှုကို ရှေးယခင်ကာလများကပင်သိရှိခဲ့ပြီး ယခုထက်တိုင်အနောက်ဘက်ကမ်းမြေ ရှမ်းပြင်ကုန်းပေါ်တွင် ရေနံတွင်းတစ်ပေါင်းများစွာမှရေနံများ ဆက်လက်ထွက်ရှိနေဆဲဖြစ်ပါသည်။ ကျောက်လွှာထုကပင်လယ်အတွင်းသို့နက်ရှိုင်းစွာထိုးဆင်းသွားလေရာ၊ ရေနံပိုင်းရောက်လေလေ၊ ကျောက်လွှာထုမှပိုနက်လေလေဖြစ်လာပါသည်။ မြန်မာပြည်အနောက်ဘက်ကမ်းလွန်ရေနံပိုင်း၏အရေအတွက်မှာ မီတာ (၂,၀၀၀) မှ (၂,၅၀၀) ခန့်အထိနက်ရှိုင်းလှပေရာ၊ ထိုရေနံပိုင်းရှိသဘာဝဓာတ်ငွေ့တည်ရှိမှုအလားအလာကိုထပ်မံကြိုးစား၊ ရှာဖွေဖော်ထုတ်ရန်ကြိုးစားခဲ့ကြပါသည်။

မြန်မာ့ကမ်းလွန်ပင်လယ်ပြင်တွင် ရေနံနှင့်သဘာဝဓာတ်ငွေ့သယ်စာတမျှားရှာဖွေထုတ်လုပ်ရန်၊ စုစုပေါင်းလုပ်ကွက် (၅၁) ကွက်ဖြင့်ဖွဲ့စည်းထားပြီး ယေဘုယျအားဖြင့် အဆိုပါလုပ်ကွက် (၅၁) ကွက်ကို မြန်မာနိုင်ငံ၏ပထဝီအနေအထားဖြင့်လည်းကောင်း၊ ကမ်းခြားရေတိမ်ပိုင်းနှင့်ရေနက်ပိုင်းပေါ်မူတည်၍လည်းကောင်း၊ အမည်နာမများသတ်မှတ်ပြီး၊ မတူညီသော PSC စာချုပ်များဖြင့်၊ နိုင်ငံတကာမှ Operator ရေနံကုမ္ပဏီများကိုလုပ်ကိုင်ခွင့်ပေးထားသည်။ လက်ရှိအချိန်တွင်၊ ထုတ်လုပ်ရေးလုပ်ငန်းများကို လုပ်ကွက် (၈) ခုတွင် Project (၄) ခုဖြင့်ဆောင်ရွက်နေကြပြီး လုပ်ကွက် (၂၁) ခုတွင် သက်ဆိုင်ရာ Operator များမှရှာဖွေရေးလုပ်ငန်းများကိုဆောင်ရွက်နေကြပါသည်။



လုပ်ကွက်အမှတ် A-6 တည်နေရာပြပုံ။

MPRL E&P ကုမ္ပဏီသည် ၁၉၉၆ ခုနှစ်မှစ၍ မန်းရေနံမြေအထွက်တိုးစီမံကိန်းကို (PCC) စာချုပ်ဖြင့် MOGE နှင့်အကျိုးတူပူးပေါင်းဆောင်ရွက်ခဲ့ရာအောင်မြင်စွာဆောင်ရွက်နိုင်ခဲ့ပြီး၊ ရရှိသောအကျိုးအမြတ်ဝင်ငွေအားပြန်လည်ရင်းနှီးမြှုပ်နှံမှု (Re-Investment) လုပ်သည့်အနေဖြင့်၊ ၂၀၀၇ ခုနှစ်၊ ဇန်နဝါရီလတွင် မြန်မာပြည်ဧရာဝတီအနောက်ဘက်ကမ်းလွန်လုပ်ကွက်အမှတ် A-6 ကို၊ ထုတ်လုပ်မှုအပေါ်အကျိုးတူခွဲဝေစားခြင်းစာချုပ် (PSC) ကိုလက်မှတ်ရေးထိုးခဲ့ပါသည်။ ကနဦးတွင်လုပ်ကွက်အမှတ် A-5 (သို့မဟုတ်) A-7 ကို MPRL E&P မှလုပ်ကိုင်ခွင့်အဆိုပြုလျှောက်ထားခဲ့သော်လည်း၊ ယခင်တွင်းတူးဖော်မှုမည်သည့်အချက်အလက်မှမရှိသေးသည့်အပြင်၊ အများစိတ်ဝင်စားခြင်းမရှိသောလုပ်ကွက်အမှတ် A-6 ကိုသာလုပ်ကိုင်ခွင့်ရခဲ့ပါသည်။ မည်သို့ပင်ဆိုစေကာမူ MPRL E&P အနေဖြင့်၊ လုပ်ကိုင်ခွင့်ပေးအပ်သောလုပ်ကွက်အမှတ် A-6 တွင်၊ ရေနံနှင့်သဘာဝဓာတ်ငွေ့ရှာဖွေလေ့လာမှုများကိုအရှိန်အဟုန်ဖြင့်လုပ်ဆောင်ခဲ့ပြီး၊ PSC စာချုပ်ချုပ်ဆိုသည့် ၂၀၀၇ ခုနှစ်မှစတင်ကာ၊ ကမ်းရိုးတန်းတလျှောက်မြေပြင်ဘူမိဗေဒလေ့လာရေး (Geological Survey) များကို လေးကြိမ်တိုင်တိုင်ကွင်းဆင်းလေ့လာမှုများပြုလုပ်ခဲ့ပါသည်။ ၂၀၀၉ ခုနှစ်တွင် (၁၉၅၅) ကီလိုမီတာရှိ (2D)

ဆိုက်စမစ်ကိုတိုင်းတာခဲ့ပြီး၊ ၂၀၁၀ ခုနှစ်တွင်လေ့လာမှုရလဒ်များပေါ်မူတည်၍၊ (၅၅၄) စတုရန်းကီလိုမီတာအကျယ်အဝန်းရှိ (3D) ဆိုက်စမစ်ကိုတိုင်းတာကာ၊ ဘူမိဗေဒ/ ဘူမိဗေဒအချက်အလက်များကိုပညာရှင်များဖြင့်၊ အသေးစိတ်လေ့လာခဲ့ပါသည်။

မြန်မာနိုင်ငံသားများအဓိကဦးဆောင်နေသည့်ရေနံကုမ္ပဏီတစ်ခုအနေဖြင့်၊ ရင်းနှီးမြှုပ်နှံမှုကြိုးစားပြီး၊ စွန့်စားရန်မလွယ်ကူသောကမ်းလွန်ရေနံရှာဖွေရေးလုပ်ငန်းတစ်ခုကို ၁၀၀% ရင်းနှီးမြှုပ်နှံကာ၊ ဆောင်ရွက်ခဲ့ခြင်းလည်းဖြစ်ပါသည်။ ၂၀၁၂ ခုနှစ်၊ နှစ်ဦးပိုင်းတွင်၊ “ပြည်သာ-၁” ရှာဖွေရေးတွင်းကိုတစ်ဖွဲ့တည်းစွန့်စားရင်းနှီး၊ တူးဖော်ခဲ့ပါသည်။ ရေအနက်မီတာ (၂၀၀) ကျော်ခန့်တွင် “ပြည်သာ-၁ (က)” ကို အနက်ပေ ၄၅၈၅ (မီတာ ၁,၃၉၈) အထိတူးဖော်ခဲ့ပြီး၊ အဆိုပါတွင်း၏တိုင်းတာတွေ့ရှိချက်များအရ သဘာဝဓာတ်ငွေ့သဲကြောရှာဖွေတွေ့ရှိမှု (Gas Discovery) ကိုအတည်ပြုနိုင်ခဲ့ပါသည်။

“ပြည်သာ-၁ (က)” တွင်းမှ လုပ်ကွက်အမှတ် A-6 ၏သဘာဝဓာတ်ငွေ့ခိုအောင်းမှုနှင့်အတူ၊ လုပ်ကွက်အမှတ် A-6 တွင် ယခင်ဘူမိဗေဒပညာရှင်များယူဆထားသော၊ သဘာဝဓာတ်ငွေ့များခိုအောင်းနိုင်မည့်သဲကြော (Reservoir) မရှိနိုင်ဟုဆိုသောအချက်ကိုလည်းချေဖျက်နိုင်ခဲ့သည်။ အရှေ့မှအနောက်သို့အနည်ပိုချသည့် Channel System တည်ရှိကြောင်းကိုအတည်ပြုပေးနိုင်ခြင်းဖြင့်၊ မြန်မာ့အနောက်ဘက်ကမ်းလွန်ဒေသ၏သဘာဝဓာတ်ငွေ့သယ်စာတမျှားတွေ့ရှိနိုင်ရန်၊ စိတ်ဝင်စားဖွယ်အနက်ကို MPRL E&P ကထပ်မံဖွင့်လှစ်နိုင်ခဲ့ပါသည်။ ရေနံရှာဖွေရေးလုပ်ငန်း၏သဘာဝသဘာဝသည်၊ စွန့်စားနိုင်မှုသာအောင်မြင်မှုကိုရရှိနိုင်မည်ဖြစ်ရာ၊ မြန်မာနိုင်ငံသားများအဓိကဦးဆောင်နေသည့်ကုမ္ပဏီတစ်ခုဖြစ်သော MPRL E&P အတွက်စွန့်စားရကျိုးနပ်ခဲ့ပြီး၊ “ပြည်သာ-၁ (က)” အောင်မြင်မှုသည် နိုင်ငံတကာရေနံကုမ္ပဏီကြီးများ၏စိတ်ဝင်စားမှုကိုဖြစ်ပေါ်စေခဲ့ပါသည်။

MPRL E&P မှတိုင်းတာထားသောအချက်အလက်များအရ၊ လုပ်ကွက်အမှတ် A-6 ၏ ရေနံပိုင်းတွင် အလားအလာကောင်းများရှိနိုင်ကြောင်းသတိပြုမိခဲ့ပါသည်။ ထို့နောက်၊ ရေနက်ပိုင်းတူးဖော်မှုတွင် အတွေ့အကြုံရသည့် Partner တစ်ဦးဖြစ်သည့်၊ ဩစတြေးလျနိုင်ငံရှိ Woodside Energy ရေနံကုမ္ပဏီမှ ၂၀၁၃ ခုနှစ်တွင် MPRL E&P နှင့် ၅၀% အချိုးကျပါဝင်ပူးပေါင်းလာခဲ့ပါသည်။ လုပ်ကွက်အတွင်းအလားအလာများကိုပိုမိုသိရှိနိုင်ရန်၊ သုံးဖက်မြင် (3D) ဆိုက်စမစ်တိုင်းတာမှုများ ဆောင်ရွက်

ခဲ့သည်။ တိုင်းတာတွေ့ရှိချက်များအရ၊ လုပ်ကွက်၏ရေနံပိုင်း မီတာ (၂,၀၀၀) ခန့်တွင် နောက်ထပ်အလားအလာရှိသည့်၊ ရေနံနှင့်သဘာဝဓာတ်ငွေ့ခိုအောင်းနိုင်မည့် အနေအထားကိုစူးစမ်းတွေ့ရှိခဲ့ပါသည်။ သို့သော်၊ တိကျသည့်အမြေထုတ်နိုင်ရန်အတွက်မူ ရှာဖွေရေးတွင်းတူးဖော်မှု သာသိရှိမည်ဖြစ်ရာ၊ ပင်လယ်ရေနက်ပိုင်း (Ultra-Deepwater) တွင်တည်ရှိသဖြင့်၊ ရေနက်ပိုင်းတွင်းတစ်တွင်း၏ ပျမ်းမျှ ကုန်ကျစရိတ်မှာ အမေရိကန်ဒေါ်လာသန်းပေါင်းရာကျော်ရှိမည်ဖြစ်ပါသည်။ ၂၀၁၅ ခုနှစ်တွင်၊ ရေနက်ပိုင်းရှာဖွေထုတ်လုပ်မှုအတွေ့အကြုံရှိသည့် Total ရေနံကုမ္ပဏီမှ ထပ်မံပါဝင်လာခဲ့ရာ၊ MPRL E&P အတွက်အတွေ့ အကြုံရှိသောလုပ်ဖော်ကိုင်ဖက်များလက်တွဲမိပြီး၊ Woodside (၄၀%)၊ Total (၄၀%) နှင့်လုပ်ကွက် Operator ဖြစ်သည့် MPRL E&P (၂၀%) အချိုးကျပါဝင် ခဲ့ပြီးနောက်၊ ရှာဖွေရေးလုပ်ငန်းများ ဆက်လက်ဆောင်ရွက်ခဲ့ပါသည်။

ဤသို့ဖြင့် “ရွှေရည်ထွန်း-၁” ရှာဖွေရေးတွင်းကို ၂၀၁၅ ခုနှစ်၊ နိုဝင်ဘာလ (၂၇) ရက်နေ့တွင် စတင် တူးဖော်ခဲ့သည်။ ရေအနက်ပေ ၆,၆၆၀ ခန့် (မီတာ ၂,၀၃၀) တွင် ရေနက်ပိုင်းတွင်းတူးသင်္ဘော (Transocean Drill Ship Deepwater Millennium) ဖြင့်တူးဖော်ခဲ့ရာ၊ သဘာဝဓာတ်ငွေ့သဲကြောကို တိုင်းတာတွေ့ရှိပြီး၊ အသားတင်သဘာဝဓာတ်ငွေ့သဲကြော (Net Pay) အထူ ၁၈၈ ပေ (၃၃ မီတာ) ခန့်တွေ့ရှိခဲ့ပါသည်။ သဘာဝဓာတ်ငွေ့နမူနာများကိုလည်းစမ်းသပ်ရယူနိုင်ခဲ့ခြင်းကြောင့်၊ ရေနက်ပိုင်းတွင်အလားအလာကောင်းသည့်သဘာဝဓာတ်ငွေ့သိုက်တည်ရှိမှုကို ၂၀၁၆ ခုနှစ်၊ ဇန်နဝါရီလ (၄) ရက် (လွတ်လပ်ရေးနေ့) တွင်အတည်ပြုနိုင်ခဲ့ပါသည်။ အဆိုပါတွင်းအားအနက်ပေ ၁၇,၄၀၈ (မီတာ ၅,၃၁၆) အထိ အောင်မြင်ချောမွေ့စွာတူးဖော်နိုင်ခဲ့သည်။

၂၀၁၇ ခုနှစ်၊ စွန့်လွှတ် တတိယမြောက်ရှာဖွေရေးတွင်း “ပြည်သာ-၁” ကို ဧရာဝတီတိုင်းဒေသကြီး၊ ပုသိမ်မြို့၏အနောက်မြောက်ဘက်ကီလိုမီတာ (၉၀) ခန့်အကွာ၊ ပင်လယ်ရေနက်ပေ ၆,၅၆၅ (မီတာ ၂,၀၀၁) တွင်တူးဖော်ခဲ့သည်။ တွင်းအနက်ပေ ၁၄,၉၉၃ (မီတာ ၄,၅၇၀) အထိတူးဖော်ခဲ့ပြီး၊ အဆိုပါတွင်း၌တိုင်းတာရရှိသောအချက်အလက်များအရ၊ အသားတင်ဓာတ်ငွေ့သဲကြောအထူ (Net Pay) ၁၈၈ ပေ (၃၆ မီတာ) ခန့်ကိုတွေ့ရှိခဲ့သည်။ ထုတ်လုပ်မှုစမ်းသပ်ရာတစ်ရက်လျှင်၊ သဘာဝဓာတ်ငွေ့ကုပပေးသန်း (၅၀) ခန့်စမ်းသပ်ထုတ်ယူရရှိခဲ့ပါသည်။

၂၀၁၇ ခုနှစ်၊ ဩဂုတ်လတွင် “ပြည်သာယာ-၁” ရှာဖွေရေးတွင်းကိုထပ်မံတူးဖော်ခဲ့ပြီး၊ ဓာတ်ငွေ့သိုက်တည်ရှိမှုအလားအလာကိုအတည်ပြုခဲ့ပါသည်။ လုပ်ကွက်အမှတ် A-6 တွင်တွေ့ရသောသဘာဝဓာတ်ငွေ့ခိုအောင်းနိုင်သည့်အလားအလာရှိသည့်ကျောက်လွှာ (Submarine Channel) အရေအတွက်



“ရွှေရည်ထွန်း-၂” တွင် သဘာဝဓာတ်ငွေ့စမ်းသပ်ထုတ်လုပ်ပုံ။

မှာ၊ လက်ရှိအချိန်ထိ (၁၄) ခု ခန့်ရှိနိုင်ကြောင်းတွေ့ရှိရပါသည်။ ယင်းတို့အားလုံးကိုတူးဖော်စမ်းသပ်ရမည်ဆိုပါက၊ အချိန်နှင့်ငွေကြေးများစွာကုန်ကျမည်ဖြစ်ပြီး၊ ပင်လယ်ပြင်၏နက်ရှိုင်းမှုကလည်း၊ အရှေ့အာရှနှင့်ပစိဖိတ်ဒေသတွင်အနက်ဆုံးအခြေအနေဖြစ်ရာ၊ အလွန်စွန့်စားရသည့်ရှာဖွေရေးလုပ်ငန်းတစ်ခုဖြစ်ပါသည်။

မည်သို့ပင်ဆိုစေ၊ စီးပွားဖြစ်ထုတ်လုပ်နိုင်မှုအတွက်အတည်ပြုရမည်ဖြစ်ရာ၊ ၂၀၁၈ ခုနှစ်၊ ဇူလိုင်လ (၂၀) ရက်နေ့တွင်၊ ပဉ္စမမြောက်တွင်း “ရွှေရည်ထွန်း-၂” ကို ဧရာဝတီတိုင်းဒေသကြီး၊ ပုသိမ်မြို့၏ အနောက်မြောက်ဘက်မိုင် (၆၀) ခန့်အကွာ၊ ပင်လယ်ပြင်ရေအနက် ပေ ၇,၆၂၈ (စိတာ ၂,၃၂၅) တွင်၊ တွင်းအနက်ပေ ၁၅,၉၁၂ (စိတာ ၄,၈၅၀) အထိတူးဖော်နိုင်ခဲ့ပါသည်။

တွင်းတိုင်းတာချက်အရ၊ သဘာဝဓာတ်ငွေ့၊ ခိုအောင်းနေသောအသားတင်သကြွေအထူ (Net Pay) ၁၃၅ ပေ (စိတာ ၄၁) ရှိကြောင်းတွေ့ရသည်။ မိမိတို့မျှော်မှန်းထားသည့်ထက်ပိုမိုကောင်းမွန်သော အနေအထားဖြစ်ပြီး၊ ထုတ်လုပ်မှုစမ်းသပ်ရာ၊ တစ်ရက်လျှင်သဘာဝဓာတ်ငွေ့ကုဗပေသန်း (၅၃) ခန့်၊ စမ်းသပ်ရရှိခဲ့သည်။ လုပ်ကွက်အတွင်းအလားအလာရှိသောသကြွေ (Submarine Channel) (၁၄) ခု အနက် (၂) ခုကိုစမ်းသပ်နိုင်ပြီး၊ သဘာဝဓာတ်ငွေ့၊ စီးပွားဖြစ်ခိုအောင်းနိုင်မှုကိုအတည်ပြုနိုင်ခဲ့ပါသည်။

ပထမဆုံးကမ်းလွန်ရေနက်ပိုင်းစီမံကိန်းတစ်ခု (First Ultra-Deepwater Project)။

မြန်မာပြည်အနောက်ဘက်ကမ်းလွန်ဒေသ၏ဖြစ်စဉ်ကိုပြန်ကြည့်လျှင်၊ အလွန်စိတ်ဝင်စားစရာကောင်းသလို၊ စိတ်လှုပ်ရှားစရာလည်းကောင်းပါသည်။ အထူးသဖြင့်၊ ရေနက်ပိုင်းမှာစိန်ခေါ်မှုကြီးမားလှသည်ဆိုရမည်။ မြန်မာပြည်အနောက်ဘက်ကမ်းလွန်မြောက်ပိုင်းတွင်တွေ့ခဲ့သော၊ ရွှေသဘာဝဓာတ်ငွေ့သိုက်ဖြစ်တည်မှုသည်၊ မြောက်ဘက်ဆီမှကျဆင်းလာသောအနည်ကျသဲကျောက်များတွင် ခိုအောင်းနေခြင်းဖြစ်သည်။ ဤအချက်သည်လုပ်ကွက်အမှတ် A-6 တွင်တွေ့ရှိသော၊ သဘာဝဓာတ်ငွေ့၊ ခိုအောင်းသည့်ပုံသဏ္ဌာန်နှင့်ခြားနားနေပြီး၊ လုပ်ကွက်အမှတ် A-6 တွင် သဘာဝဓာတ်ငွေ့များသည်၊ အရှေ့ဘက်မှအနောက်ဘက်သို့ (East to West) ပို့ချသော အနည်ကျသဲကျောက်လွှာများတွင်တွေ့ရှိခြင်းဖြစ်သည်။ တစ်နည်းအားဖြင့်ဆိုသော်၊ လက်ရှိဧရာဝတီမြစ်ကြောင်းများဆီမှ၊ ဘူမိသက်တမ်းတစ်ခုအတွင်းပို့ချသောအနည်ကျသဲကျောက်များတွင်ခိုအောင်းဖြစ်တည်နေသည်။ ရေနံဓာတ်ငွေ့သိုက်တစ်ခုဖြစ်သည်။ ထိုဧရာဝတီအနည်ပို့ချမှုစနစ် (Paleo Ayeyarwady System) တည်ရှိမှုက၊ ပညာရှင်များအတွက်ရေနံရှာဖွေရေးဆိုင်ရာရှာဖွေတွေ့ရှိမှုအသစ်တစ်ခု (New Petroleum Play System) လည်းဖြစ်သည်။

မြန်မာနိုင်ငံလုပ်ကွက်အမှတ် A-6 ၏သဘာဝဓာတ်ငွေ့ထုတ်လုပ်မှုလုပ်ငန်းသည်၊ ပင်လယ်ရေနက်ပိုင်းစိတာ (၂,၀၀၀) ခန့်တွင်ဆောင်ရွက်မည်ဖြစ်ရာ၊ ပထမဆုံး (History Making) ရေနက်ပိုင်းထုတ်လုပ်မှု (Ultra-Deepwater Development & Production) စီမံကိန်းတစ်ခုအဖြစ်မှတ်တမ်းတင်ရမည်ဖြစ်ပါသည်။ ကမ္ဘာတစ်ဝှမ်းမှာပင်၊ ရေနက်ပိုင်းမှသဘာဝဓာတ်ငွေ့ထုတ်လုပ်နေသောစီမံကိန်း

ပေါင်း (၁၆) ခုခန့်သာရှိရာ၊ လုပ်ကွက်အမှတ် A-6 စီမံကိန်းသည် မြန်မာ့ကမ်းလွန်သဘာဝဓာတ်ငွေ့ထုတ်လုပ်မှုလုပ်ငန်းအတွက်၊ ထူးခြားသောစီမံကိန်းဖြစ်လာပါလိမ့်မည်။ ပညာရှင်ပိုင်းဆိုင်ရာနှင့် လုပ်ငန်းပိုင်းဆိုင်ရာအကော်အခဲများစွာရှိရာ၊ လုပ်ငန်းများအချိန်မီပြီးစီးရေးအတွက်၊ ငွေအား/လူအားများစွာအသုံးချကာကြိုးပမ်းဆောင်ရွက်သွားရမည်ဖြစ်သည်။

မိမိတို့တိုင်းပြည်သည်စွမ်းအင်လိုအပ်ချက်အမြဲတိုးတက်နေသည်ဖြစ်ရာ၊ မိမိတို့သယံဇာတကို ကိုယ်တိုင်ထုတ်လုပ်သုံးစွဲနိုင်မှုသာ၊ ကုန်ကျစရိတ်သက်သာသည့်စွမ်းအင်ကိုသုံးစွဲနိုင်မည်ဖြစ်သည်။ အထူးသဖြင့်၊ လျှပ်စစ်သုံးစွဲမှုသည်တစ်နှစ်လျှင် ၁၂ % ခန့်တိုးတက်နေပြီး၊ သဘာဝဓာတ်ငွေ့အပေါ်မှီခိုမှုမှာ ရေအားလျှပ်စစ်ပြီးလျှင်၊ ဒုတိယနေရာတွင်ရှိနေသည်။ သို့ဖြစ်ပါ၍ MPRL E&P, Total, Woodside တို့မှ Development & Production ဖွံ့ဖြိုးရေးလုပ်ငန်းအမြန်ဆုံးအကောင်အထည်ဖော်နိုင်ရန်၊ ခေါင်းချင်းဆိုင်ကြရသည်။ ရေနက်ပိုင်းဖွံ့ဖြိုးရေးလုပ်ငန်း၏ကုန်ကျစရိတ်က အမေရိကန်ဒေါ်လာဘီလီယံချီမည်ဖြစ်ရာ၊ ကုန်ကျစရိတ်အသက်သာဆုံးနည်းလမ်းကိုရှာဖွေရလိမ့်မည်ဖြစ်သည်။ ထို့အတွက်၊ နိုင်ငံတော်၏အားပေးကူညီမှုကလည်းအရေးကြီးပါသည်။

ယခုမြန်မာ့ကမ်းလွန်စီမံကိန်းကြီးလေးခုမှ တစ်ရက်လျှင်၊ သဘာဝဓာတ်ငွေ့ကုဗပေသန်း (၁,၈၀၀) ခန့်ထုတ်လုပ်နေသည်။ ကုဗပေသန်း (၄၀၀) ခန့်သာ ကိုယ့်တိုင်းပြည်အတွက်အသုံးချနေပြီး၊ ကုဗပေသန်း (၁,၄၀၀) ခန့်ကပြည်ပသို့ရောင်းချပေးနေသည်။ အရှေ့တောင်အာရှတွင်ပြည်ပသို့ပို့ကုန်လိင်ဖြင့်၊ သဘာဝဓာတ်ငွေ့ပို့လွှတ်ရောင်းချနေသောနိုင်ငံများအနက်၊ မြန်မာနိုင်ငံသည်ထိပ်ပိုင်းမှာရှိနေသည်။ အထူးသဖြင့်၊ ထိုင်းနိုင်ငံ၏စွမ်းအင်လိုအပ်ချက်ပမာဏများစွာမှာမြန်မာနိုင်ငံအပေါ်မှီခိုနေရသည်။ တရုတ်ပြည်ကလည်း၊ ၎င်းတို့၏အနာဂတ်လိုအပ်လာမည့်စွမ်းအင်အတွက်၊ မြန်မာပြည်ကပထဝီအနေအထားအရမဟာဗျူဟာကျသောအခြေအနေဖြစ်သည်။ အိန္ဒိယကလည်း၊ မြန်မာပြည်မှသဘာဝဓာတ်ငွေ့ကိုလိုချင်သည်။ တစ်နည်းအားဖြင့်၊ မြန်မာနိုင်ငံသည် ထိုင်း၊ တရုတ်၊ အိန္ဒိယတို့အတွက် အနာဂတ်စွမ်းအင်နှင့်ပတ်သက်လျှင်၊ ဒေသတွင်းအရေးပါသောနိုင်ငံတစ်ခုအဖြစ်တည်ရှိနေသည်။

မြန်မာ့ကမ်းလွန်ရှိ၊ လက်ရှိစီမံကိန်းကြီးများထုတ်လုပ်မှုကျဆင်းလာချိန်တွင်၊ လုပ်ကွက်အမှတ် A-6 မှ ပြည်တွင်း/ပြည်ပအတွက်စွမ်းအင်လိုအပ်ချက်ကိုဖြည့်ဆည်းကာ၊ နိုင်ငံတော်၏စီးပွားရေးကိုများစွာအထောက်အပံ့ပေးနိုင်မည်ဖြစ်သည်။ မြန်မာနိုင်ငံသားများအဓိကဦးဆောင်နေသည့်ရေနံကုမ္ပဏီ MPRL E&P ၏ ပထမဦးဆုံးကမ်းလွန်တွင်း “ပြည်သာ-၁ (က)” မှအစပြုခဲ့သည့် ကမ်းလွန်လုပ်ကွက် အမှတ် A-6 စီမံကိန်းသည်၊ လက်ရှိမြန်မာ့ကမ်းလွန်ရေနံစီမံကိန်းများဖြစ်သော ရတနာ၊ ရဲတံခွန်၊ ရွှေ နှင့်ဓောတီကတို့ပြီးလျှင်၊ ပဉ္စမမြောက်ထပ်မံထွက်ပေါ်လာမည့် သဘာဝဓာတ်ငွေ့စီမံကိန်းကြီးတစ်ခုဖြစ်သလို၊ အရှေ့တောင်အာရှဒေသတွင်ပထမဆုံးထွက်ပေါ်လာမည့် ကမ်းလွန်ရေနက်ပိုင်း (Ultra-Deepwater) သဘာဝဓာတ်ငွေ့ထုတ်လုပ်မှုစီမံကိန်းကြီးတစ်ခုဖြစ်လာမည်ဖြစ်ပါသည်။ ■

ယခုဆောင်းပါးကို ၂၀၁၉ ခုနှစ်၊ ဒီဇင်ဘာလ ၂၂ ရက်တွင် ထုတ်ဝေသည့် မြန်မာ့အလင်းသတင်းစာတွင် ဖော်ပြခဲ့ပြီးဖြစ်ပါသည်။

Plan in the Pipeline to Increase Female Staff Ratio in Mann Field

This is a conversation with Assistant Field Operations Manager U Myo Min Thein for the Employee Spotlight section of Insight!

Thal Sandy Tun

Please introduce your role and responsibilities in Mann Field.

I am Myo Min Thein, one of the Assistant Field Operations Managers in Mann Field. I am responsible for planning and implementing the daily field operations activities with the main purpose of achieving annual production targets in accordance with our HSE standards. I am also involved in manpower planning and human resource development of the field operations staff in addition to many other important tasks.

Please tell us a little bit about your education, and professional background.

I am a graduate in BE (Petroleum) from the Yangon Technological University, and MPRL E&P is the only company where I have worked as a professional petroleum engineer over these years.

Could you explain about the production target of Mann Field for the Financial Year 2019-2020, as well as operations conducted to meet the target?

We are carrying out Spot Water Injection program, GreenZyme Treatment program, additional Perforation, Workover and Well Servicing activities to meet the production target with each operation gaining success to an extent. Furthermore, we have celebrated an HSE milestone of achieving 2 million man-hours without a LTA in our Mann Field Enhanced Oil Recovery (EOR) Project as a result of efforts by the Field Operations Team, HSE Team and many others.

How do the operations co-exist with local communities? How would you like to reflect on the CSR work program and its value-creation for local communities?

The Field Operations Team, CSR Team, and MOGE engage with the local communities through discussions aiming to broker an agreement regarding conducting some of the field operations in wells located on their farm land. We also ensure the OGM cases are handled well—this year a total of 13 OGM cases have been collected and solved against the key performance indicators set.

To my knowledge, our CSR Program in Mann Field has provided six vocational trainings for women, youth, and farming households in the communities in order to effectively support job creation, and income generation in Mann Field.

What are some of the most important aspects



of environmental impact management in Mann Field for this fiscal year?

Mann Field EOR Project has received an Environmental Compliance Certificate (ECC) from the Environmental Conservation Department (ECD) of the Ministry of Natural Resources and Environmental Conservation (MONREC), and we prioritize the requirements to fulfill our environmental obligations in line with the ECC in our daily operations. Up till now, we have conducted monitoring activities three times to observe the physical environmental parameters in Mann field in accordance with the Environmental Monitoring Plan (EMP) in the ECC.

What do operations staff usually do in their free time?

We ensure that our staff do physical exercise in their free time, before or after work, to maintain their health. We are happy to see many staff enjoy learning technical updates and news related with their professions by surfing the internet. They also use Facebook and Messenger to stay connected with their friends. Some like watching movies and football matches on TV in the dining room or listening to songs in their cabins.

How many female operations staff are there? Does it make a difference to the daily operations and teamwork? Is there any plan to increase their ratio in Mann Field in the future?

Currently there are four female operations staff members stationed in Mann Field. I believe the addition strengthens team dynamics and creates a positive impact in our daily operations as these female engineers have worked side-by-side with their male counterparts and developed a high expectation for their careers. The company does have a plan to increase the ratio of female staff in Mann Field in the future to ensure that women have equal opportunities for career development, especially in technical roles.

How do you understand employee motiva-

tion? How would you like to support it in your capacity as an assistant manager in Mann Field?

Employee motivation is very important to achieve the company's annual goals. Therefore, it is crucial to promote their physical and mental well-being at the workplace, to ensure they have a work-life balance, as well as to help manage stress and prevent illnesses and diseases. We also provide a number of soft-skill trainings to help them build capacity and confidence in their jobs so that they remain engaged, motivated and happy in their professions. It is our duty to extend our human resource management efforts by identifying high-potential employees from each operations team who can take up leadership roles in times of need and to ensure business continuity in our field operations.

What do you think about the recent Town Hall completed in Mann Field for a third time? What were the most important questions that staff have asked?

The 7th Town Hall was successfully hosted in Mann Field for the fourth time in January 2020 in order to continue the two-way dialogue between Senior Management and us – the front-line staff. During the town hall, a total of 21 questions varying from the future outlook of the company to inspirational messages were raised to Senior Management who provided their most authentic answers in response. I have observed that there has been an improvement between Senior Management and staff members in the way they discuss matters important to the company and themselves. Personally, I found it very motivating to learn about some of the life accounts of our CEO U Moe Myint and Group General Manager U Myo Tin.

At personal level, how do you perceive your role in Mann Field and general satisfaction as well?

MPRL E&P is the only company where I have worked as a professional petroleum engineer, accumulating years of experience in the field operations. Now as an Assistant Field Operations Manager, I believe that it is very important to me to be able to lead field operations successfully on a daily basis, and I have been trying my best to improve my leadership skills, management, and decision-making abilities. I am very pleased with my role and the chance to work for the company for such a long time with the support of my team and other colleagues. ■

A Fine Balance between Work and Life

Daw Su Mon Aye is an Assistant Geoscientist working at MPRL E&P for over five years. In addition to her full-time work, she is raising a daughter, and is also an avid runner who has completed the 42km marathon at Yoma Yangon International Marathon 2020 held in January. Let's find out how she juggles her multiple priorities in life.

Thal Sandy Tun



Since graduating with a master's degree in Petroleum Geology from Yangon University in 2011, Daw Su Mon Aye has worked at MPRL E&P as an Assistant Geoscientist contributing to the exploration efforts and field developments in both onshore and offshore assets.

Su Mon Aye said, "I have worked at MPRL E&P for nearly eight years, and my role is to be responsible for well log correlation, seismic interpretation, prospects evaluation, field redevelopment grading, and sedimentary basin studies, in both exploration and development of the offshore and onshore operations of the company."

What could be more fulfilling than studying a subject that you are interested in at university and applying it at your full-time job? Su Mon Aye explained why she decided to concentrate on geology at university.

"I studied geology because I found some of the aspects of the subject required one to go out in the field and explore the natural environment [to be] very exciting. Many people understand that geology is concerned with mostly studying rocks. In fact, there are many branches of geology that are pretty interesting and are practical in our daily lives such as Engineering Geology, Environmental Geology, and Hydrology. Among them, Petroleum Geology is directly related to and plays an important role in the upstream oil and gas industry as Petroleum Geologists conduct research on the structural and sedimentary features of rocks, and locate petroleum stocks and identify drilling sites on land as well as under the seabed."

However, it is not just about solely working with "dinosaur bones". Su Mon Aye finds ample opportunities to interact with a range of professionals from many other disciplines which has

become the second nature that she enjoys most in her job. "We work as a team both within the Geoscience Department and cross-functionally. So it is important to learn from others while also sharing my own knowledge. We also need to use critical-thinking in data interpretation and apply an analogy from a different area to ours to consummate the serious relationship between science and business," she revealed.

At the same time, Su Mon Aye expressed that nothing is harder and challenging than working full-time and looking after her own family: a caring husband, and a lovely 2-year-old daughter. "I got married at the age of 28. And two years later, a new family member came into my life. I don't think I am a lucky person in other areas of life, but when it comes to finding a balance between my career and family, I feel I am really fortunate to have kind parents, a supportive husband and an adorable kid. I couldn't ask for more!"



When it comes to life ambitions, she does not hide her quality of being humble while determined to support her daughter to realize her fullest potential. "As I spend most of my time at work during the weekdays, weekends are reserved for my family with whom I go shopping. Sometimes I cook at home for them or we watch TV together. We do not expect too much in life such as becoming rich or socially well-known. However, we simply want our daughter to grow-up to be a healthy, well-mannered, and well-educated girl who can follow her own dream."

Among her busy schedule, Su Mon Aye found the time to train to run a full 42.195 km marathon at the Yoma Yangon International Marathon 2020, a popular charity running festival in Yangon. She started out by making up her mind to walk home from the office in the evening over a distance of 15 km once a month until the marathon day on January 19, 2020. What actually happened on D-Day? Su Mon Aye recalled:

"It took me a total of six-and-a-half hours to complete the marathon. I alternated between running and walking along the way. I felt pressure to reach the finish line within the time limit so I could collect my race medal. There was an internal struggle — I was so physically tired that I felt like giving up while I mentally went on. Finally, the mental part won. Grabbing my sheening race medal under the 12 o'clock sun, I realized how important the mind's power is to accomplish something."

People may take up such a challenge and many other challenges in life for multiple reasons. For Su Mon Aye, her daughter was the major motivating factor to complete the marathon — she wanted her to learn this example she has set for her as she grows up. She uttered, "I want my daughter to understand that I could do something this hard myself when I was young, and there is nothing in life that one cannot do when mentally prepared."

Aside from this, Su Mon Aye revealed personally she feels healthier and more confident now, which could be translated into a more productive life in the future.

Sometimes it is one's quiet determination that enables them to strike a balance between the need to be financially independent and the merit to be a responsible parent who, among many things, does not fail to inspire their children by being most immediate role models. ■



HSE Department

Occupational Health & Safety

In order to fulfil commitments as mentioned in MPRL E&P's OHS policy and Environmental policy, the HSE department has been taking a driving role for the policies to be implemented and ensuring everyone in the company is taking ownership to implement the company's commitments in their day-to-day operations by integrating HSE as part of the business. The HSE department is also responsible in ensuring the implementation of company's HSE management system which has been developed by referring ISO standards such as ISO 45001 Occupational Health and Safety Management System and ISO 14001 Environmental Management System. In order to do so, the HSE department has several roles in dealing with company workforces, assets and properties, practices, procedures and standards compliant. Main functions of the department comprises as follows:

- Generating daily, weekly and monthly HSE reports to management
- Designing HSE training program and delivering series of training to the workforce as per planned schedule in order to raise the awareness level of the employees
- Liaising with Human Resources Department to ensure the adequacy of competency level of each position in the organization
- Facilitating to the technical team members in hazard identification and risk assessments on the operations and ensuring they kept reviewed and updated on regular basis.
- Ensuring that planned preventive maintenance program in place and implementing for operational assets to achieve minimal downtime in operation as well as to prevent accidents which might be caused by the failure of the assets.
- Promoting and Implementing of the CARE

card system to ensure it is effective and user friendly for all company's personnel, contractors and visitors.

- Developing positive safety culture in the organization by creating programs such as best CARE card award program, HSE performance program, and behavioural change program as the human error is the most common cause of accident by its nature.
- Monitoring and recording incident statistics and comparing it to the previous year's data to find the weakness or the areas for future improvement.
- Benchmarking the company's incident statis-

tic with the similar industries to identify where we are and where we need to be.

- Conducting incident investigation once the accident or near miss occurred in order to identify the root causes of each event so that similar occurrences will be prevented.
- Circulating safety alerts is also a part of departmental role to keep everybody vigilant.

HSE department mainly focus on the workers' participation in HSE programs and by doing so, opportunities are opened up to everyone to raise their concerns without barriers with the mind-set of **"I am responsible for the Health, Safety and Environment of my colleagues."** ■



U Nay Myo Aung
HSE Manager

U Nay Myo Aung graduated with B.E (Petroleum Engineering) from Yangon Institute of Technology in 1996 and has over 20 years' experience working in the oil and gas industry. He is working as HSE Manager at MPRL E&P Group of Companies. His background experience is production and drilling operations. He worked for MPRL E&P as a Field Manager and trans-

ferred to ASIA Drilling as an Assistant Rig Manager. He subsequently got promoted and managed the drilling rigs as a Rig Manager when he worked in Thailand.

He is currently the HSE Manager at MPRL E&P Group of Companies. His main role is to develop policies, practices to ensure that MPRL E&P is a safe working environment, and that the HSE team of GOCs can provide technical expertise to HSE activities related in areas of policy development, implementation, assessment and improvement of the company's HSE Management System. The HSE team is working proactively with managers to establish and maintain a system that promotes a positive safe-working practices across the organization and direct management and leadership of the HSE team.

He has strong HSE team members who are professional and fully support achieving the 2 million man-hours work without Lost Time Accident (LTA) in Mann Field. Field Management is synchronizing with the HSE standards and practices which is implementing and improving individual HSE positive safe-working environments. Furthermore, achieving of Environmental Compliance Certificate is a milestone at MPRL E&P. ■



U Sithu Zeya
Assistant HSE Manager

U Sithu Zeya started his career with MPRL E&P on October 15, 2015.

In 2004, he graduated with a Bachelor of Engineering in Electronics from Yangon Technological University.

He has a strong desire to serve in workplaces to ensure they become accident-incident-free, as well as encouraging a pollution-free environment. Being a true enthusiast on HSE, he keeps self-improving progressively throughout his over

13-years' experience to become an expert in the field.

He assists the HSE Manager to lead HSE activities in the group of companies to ensure compliance with local, state and federal regulations pertaining to Oil & Gas Operation. He also manages HSE management procession such as coaching, training, and auditing to demonstrate the improvement of HSE culture in the organization.

He communicates regulatory information, educates and informs HSE personnel and all employees, contractors and visitors alike by ensuring that risks in the workplace areas are identified and properly controlled to a reasonably low-level, and that the MPRL GOC's activities have a minimal negative impact on the environment.

He provides support on complex HSE issues to achieve sustainable compliance with applicable regulations, company policies and procedures to meet and align HSE goals and tasks with that of MPRL E&P's goals and activities.

He earned several certifications -- "Fire & Life Safety Certification" training conducted by the Institution of Fire Engineers (IFE), Singapore, in 2010; "Registered Safety Manager Certification" from International Board of Environmental Health and Safety (IBOEHs), USA; "OHSAS 18001:2007 Lead Auditor" from International Register of Certificated Auditors (IRCA), UK respectively in 2016. Since 2017, he has been pursuing an "International Diploma in Occupational Health and Safety" offered by the National Examination Board in Occupational Safety and Health (NEBOSH), UK, which is a prestigious and internationally recognized qualification with the equivalency of Honors Degree - he is now at the final stage of his thesis submission in order to graduate. ■



U Win Naing Kyaw
Assistant HSE Manager

He joined MPRL E&P on October 1, 2019. He is assigned at Mann Field Office (MFO) and working in touch with field operations to strengthen

the HSE performance of MPRL E&P. He collaborated with HSEO, field operations and as well as Stakeholders MOGE through day-to-day toolbox meetings, safety talks, Job Safety Analysis reviews, work site inspections, etc. to achieve his ultimate goal of "Zero Accident at Workplace". He also led accident/investigations to dig out latent root causes of accidents and define corrective actions to prevent reoccurrence. As part of the HSE's routine site duties, he shared HSE knowledge to the workforce including MOGE HoDs through training programs at Mann Field.

U Win Naing Kyaw graduated with a Bachelor of Engineering (Mechanical) from Magwe Technical University in 2017. Before he joined MPRL E&P, he worked in Yetagun Gas Development Project operated by Petronas Carigali Myanmar Limited. In 10 years at PCML, he was assigned as a Pipeline Engineer and as the Pipeline Supervisor. Apart from the academic qualification, he also qualified for SRF BTEC Level 4, Professional diploma in Oil and Gas Facility Management, NEBOSH International General Certificate in Occupational Health and Safety and NEBOSH International Technical Certificate in Oil and Gas Operational Safety. ■

His career started with MPRL E&P on May 2, 2014.

He assists the HSE Manager to provide support such as preparing HSE reports, conducting trainings, coordinating inspections and audits, and monitoring the site's activities in the group of companies to ensure compliance with local, state and federal regulations pertaining to Oil & Gas Operations.

He provides support on technical expertise for activities related to the execution of the company's Health, Safety, and Environmental Management System (HSEMS).

In 2005, he graduated with a Bachelor of Law (LLB) from Dagon University.

He has had 14-years' experience to become an expert in the Health, Safety, and Environmental in Construction, Marine Engineering (shipyard), Heavy industries and Oil and Gas

industry.

He passed the "Fire & Life Safety Manager Certification" training conducted by Myanmar Fire Service in 2013. He also earned the "Registered Safety Officer Certification" from International Board of Environmental Health and Safety (IBOEHs), USA in 2013. ■



Dr. Nyi Win
Site Doctor

Dr. Nyi Win was born in 1963, and he graduated from the Institute of Medicine 1 (Yangon) in 1976 with an MBBS degree. After working as a general practitioner for a few years, he entered the Oil and Gas Industry as a Field Doctor at BHP-P Myanmar from 1991 to 1994. Later he joined the Marine Drilling in 1997 through Myint & Associates Company Limited. He then moved to MPRL E&P's Mann Field Project to work as a Camp Doctor and Safety Officer at the HSE Department in April 1998.

As a Site Doctor, he takes care of health of site personnel and runs the base camp clinic by maintaining adequate medical supplies and keeping medical records, producing medical reports, giving health talks and Basic First Aid trainings to site personnel as well as assisting in site incident situations. He performs medevac of injured persons, incident investigations, surprise alcohol tests, Healthy Living Campaign and Body Weight Management Campaign as part of the HSE Team in Mann Field.

He is also one of the camp doctors contributing to the Mobile Clinic Program, one of the MPRL E&P's CSR initiatives for the community in Mann Field, in which he addresses basic health care needs of the elderly, children and women who are the main beneficiaries of the Program. ■



U Aung Ko Ko Oo
Assistant HSE Controller





Dr. Myint Wai
Site Doctor

Dr. Myint Wai was born in 1953, and he obtained his MBBS in Yangon in 1979. Then he worked as a general practitioner at Kyimyindaing Cooperative Clinic and as a medical research doctor at Medical Research Department in Yangon Region.

Later he moved to the business community by becoming a Camp Doctor at Cakara Alam Logging Company in Papua New Guinea until 2004. After coming back from Papua New Guinea, he joined Myint & Associates Company Limited as an offshore medic. Afterwards, he became a Camp Doctor and Safety Officer at MPRL E&P in October 2015.

While his duties are almost the same as Dr. Nyi Win, the two work in accordance with their duty rosters so that the Base Camp Clinic is run efficiently and medical needs of site personnel are always met effectively. Dr. Myint Wai also takes ample opportunities to contribute his time and knowledge to improve health care and health education of the medically under-served people from the communities in Mann Field through our Mobile Clinic Program. ■



Dr. Tin Ko Lwin
HSE Officer

Dr. Tin Ko Lwin joined MPRL E&P Pte Ltd's HSE team as HSE Officer in March 2012. Before joining the oil and gas industry, he graduated with a Bachelor of Medicine from University of Medicine (1) in 2010. He also earned Occupational Health Safety & Environment certificates and Health & Safety Level (3) Professional Diploma from Reading College. He started working as an HSE officer at Myint & Associates Co., Ltd. which is one of the MPRL E&P's Group of Companies for six months, then transferred internally to MPRL E&P Pte Ltd. as an HSE officer. He has a total of more than seven-years' experience in Health, Safety & Environment specializing in oil and gas operations. He leads coordination with the Field Operations Team and implements Risk Assessment and Job Safety Analysis Systems in Field Operations and Emergency Response Plan. He is also responsible for heading Incident Investigations. Furthermore, he is also supporting not only MPRL E&P Pte Ltd., but also other Group of Companies' HSE activities. ■

U Myo Thant Zin
Site HSE Officer

U Myo Thant Zin joined the HSE team of MPRL E&P Pte Ltd. as HSE Officer in June 2018. Before joining the oil and gas industry, he graduated with a Bachelor of Engineering (Mechatronics) from Thanlyin Technical University in 2013. He also earned Occupational Health and Safety certificates. He started working at one of the oil and gas services company "United Engineering Group of Companies" for four years. He then gained his HSE experience in the oil and gas services by working as an HSE Officer at Myint & Associates Co., Ltd., which is one of the MPRL E&P's Group of Companies – he was then transferred internally to MPRL E&P Pte Ltd. He is assigned at MFO and works with the Field Operations Team and MOGE. He has a total seven-years' experience in the Health, Safety and Environment in oil and gas operations. He leads to co-operate with the Field Operations Team and implements Job Safety Analysis Systems for critical operation activities and emergency response plans (fires, "Man-down", oil, gas and formation water spills, earthquake, etc.) He also conducts Incident Investigations, Worksite Toolbox Talks, Inspections, Audits, Sharing Trainings, HSE Alerts and Monitoring Programs. He also collaborates with the field team and HSE Department to achieve "Zero Lost Time Accident" and "Minimize Environmental Impact" at the company. Furthermore, he is also supporting not only MPRL E&P Pte Ltd. but also other Group of Companies' HSE activities. ■



U Thet Paing Oo
Site HSE Officer

U Thet Paing Oo joined the HSE team of MPRL E&P Pte Ltd. as an HSE Officer on June 20, 2018. He is assigned at MFO and working with the Field Operations Team and MOGE. He leads to co-operate with field operations team and implement the Job Safety Analysis System for critical operation activities and emergency response plan. He also does Incident Investigation, Worksite Toolbox Talks, Inspections, Audits, HSE Alert, and HSE Monitoring Program. He is also collaborating with the field team and HSE Department to achieve "Zero Lost Time Accident" and "Minimize Environmental Impact" at the company. He reviews and implements HSE KPIs committed in the HSE plan and follows-up. He has shared HSE knowledge to the workforce including MOGE HODs through the training programs at Mann Field.

He graduated with a Bachelor of Engineering (Mechanical) from West Yangon Technical University in 2014. Before joining MPRL E&P, he started working at one of the oil and gas services company "United Engineering Group of Companies" for over a year, as an HSE Engineer. He then joined Dawn Group of Companies for three years – afterwards he transferred to MPRL E&P Pte Ltd. He is assigned at MFO and working with the Field Operations Team and MOGE. He has a total of six years' experience in the Health, Safety and Environment in the oil and gas operations as well as construction operations. ■



U Ye Win Htut
Site HSE Officer

U Ye Win Htut who is a HSE Officer, graduated with a Bachelor of Geography before he joined MPRL E&P in March 2012. His role and responsibility is to provide reporting, coaching, training, auditing and monitoring the site's activities to ensure that all operational risks are identified and managed. He has over seven-years' experience at MPRL E&P Group of Companies. He has assisted the field team in terms of developing and implementing the required tasks such as Pre-Job Safety Meetings, Toolbox Talks, Job Safety Analysis, Risk Assessments for site activities and incident investigations with a reporting process. He also coordinated with the field team for site inspections, registering the CARE Card system, organizing the evaluation of CARE Card Award program and controlling the safe work system including PTW system, LOTO system, etc. Implementing and monitoring of Environmental Management Plan is part of his job. He earned qualifications in Occupational Health and Safety certificates, Occupational Safety and Health Specialist Program and Oil & Gas Safety Supervisor course endorsed by OSHA Academy (USA) organized by WIN OSHE Services. ■

Daw Tin Nwe Wint Environmental Engineer

Daw Tin Nwe Wint is an Environmental Engineer, she joined MPRL E&P's HSE Department on July 1, 2015. Before joining MPRL E&P, she worked in Food and Beverages Company as a Process Engineer, controlling and monitoring the Wastewater Treatment Projects and Process. She also received a Master of Chemical Engineering from Yangon Technological University, a Master of Public Administration on CSIS and Post-Graduate Diploma in Environmental Studies on University of Yangon.

In her initial first month at MPRL E&P, she faced a lot of difficulties and challenges. She studied Petrochemical Engineering subject at university, but everything was new to her. Her responsibilities include updating environmental activities, conducting environmental monitoring reports, and monitoring the progress of environmental mitigation and implementation plan for MPRL E&P Pte Ltd.

Her role as Environmental Engineer is to keep people and the environment free from pollution. In her working environment, she shares her knowledge to the community and colleagues to promote environmental awareness with sound waste management as well as reducing waste, and maintaining a safe environment. ■



U Han Myo Aung Environmental Officer

He graduated with a Bachelor of Engineering (Electrical Power) from Yangon Technological University in 2002, and earned his Master of Public Administration from Yangon University of Economics in 2019. He has worked in the Public Sector for over 15 years with his last service at ECD. He attended training on e-waste management course in Tsinghua University, China.

In August 2019, he joined MPRL E&P as an Environmental Officer coordinating with the Field Operations Team and other related departments from internal and external for strengthening the company's committed environmental management systems, compliance with ECC, environmental regulations and policies set by the state and Group of Companies.

His role and responsibilities are to implement and manage Environmental Management Plan, participate in (and provide) technical expertise to activities related to the development, implementation, assessment and improvement of the company's environmental management systems, monitoring and implementing of the Environmental Action Plan, minimizing environmental impacts, and fostering positive environmental stewardship culture in the working environment. ■



Daw Nang Khin Win Office Medic

Daw Nang Khin Win is working as an Office Medic in Health Safety and Environment Department at MPRL E&P since April 29, 2019. Her job responsibility is to provide first aid and treating patients/employees who are sick and injured at workplace and takes daily patients' record. Furthermore, she is also responsible for arranging weekly first-aid kit inspections, and purchasing monthly medical supplies first-aid kits. Also she provides support in kitchen hygiene inspection at Yangon Office monthly. She assists in monitoring and recording Body Mass Index (BMI) measurements which is part of the weight management campaign.

She attended and passed her post-master training from Transport Communication Training School in 1992. She earned her Bachelor's of Science in Zoology at Taunggyi University of Distance Education in 1993. After that she transferred to Nursing Training School in 1996. She obtained a Diploma in Nursing Science and Midwifery in 1999.

Before she joined MPRL E&P, she worked at private hospitals and clinics as a nurse for over 15 years. Also, she has over three-years' experiences as a post master at a government office. ■



Daw Myo Myat Myat Thein HSE Administrator

Daw Myo Myat Myat Thein started working as a Departmental Assistant in HSE Department since July 1, 2016. Now she is the HSE Administrator. In her current position as a HSE Administrator, her job responsibilities is to provide the administration of the day to day operations of the HSE Department.

In early 2015, she joined Myint & Associates Co., Ltd., one of MPRL E&P's sister companies. Afterwards she transferred to MPRL E&P in mid-2016. She has been with MPRL E&P for over five years now.

Some of her job responsibilities include maintaining documents and quality records in accordance with policies, assisting with coordinating safety-related trainings, pre-preparation and collation of HSE reports and financial report, organizing events, trainings, arranging logistics, and liaising with outside contractors and suppliers. She is also responsible for taking meeting minutes, collecting and recording safety information and/or distribution and display of HSE related posters and information. She provides the raising of purchase requisitions and/or field requisitions and dealing with invoices and assists in inspections and audits when required.

She works with the HSE team to promote a positive safety culture through interactions and communication within the workplace, and ensure compliance with internal HSE policies and procedures. In addition, she facilitates and supports the HSE activities for other MPRL E&P Group of Companies. ■



"A journey is best measured in friends rather than miles."

— Tim Cahill

Thae Aei Khinn Zaw

As the saying goes, "People don't take trips, trips take people," as for our CSR & Communications team I want to say "We take trips, and trips take and bond us, too." As everyone knows, it is relatively easy to go on a trip by yourself, but when it comes to traveling with friends, well, it rarely happens. But we managed to prove that with the team in the spirit of doing things together during a trip to Kalaw and Taunggyi in the beginning of 2020.

We had planned a trip to Kalaw and Taunggyi in November 2019; we browsed the calendar for consecutive holidays and found out that January 2020 would be a great start for the trip. We discussed the trip among ourselves and made a decision to begin the new year with trip. We took a six-person group trip to Kalaw and Taunggyi with our own vehicle starting from Jan-

uary 3 – as there were three holidays in a row (January 3-5).

There were a lot of private cars, buses, and many other vehicles on the road during the day of our departure, especially on the way to the toll gate. It took us longer than usual to reach the entrance of the Yangon-Mandalay Express Highway due to many holiday-makers like us. We took the Yangon-Mandalay Highway to go to Nay Pyi Taw first – we reached the city on January 4.

When we arrived at Nay Pyi Taw, all of us took a short pit-stop at one of our colleague's home until the sun rose, recharging ourselves for the rest of the trip. When dawn came, we were already fresh and fit to witness and enjoy the beauties of mountain ranges along our trip to Kalaw. Before we left Nay Pyi Taw, we had a delicious breakfast – it was the very first tasty and wonderful breakfast during our trip because of great food and great company. Along the way from Nay Pyi Taw to Pin Long, the sun was rising, and the view of the dazzling mountains alongside were spectacular and very mesmerizing. It was really a pleasure to witness those mighty mountains. On January 4, at around 10:00 am, we got on the Lein Li Bridge after passing through a zig-zag road. And we had fun taking photos under the bridge; those moments are really unforgettable.

After we passed through Lein Li Bridge and drove for about one and a half hours we arrived Pin Long, where we had our lunch at Shan Traditional



Food house. We devoured our lunch at the shop as all of us were really starving and the food is really tasty. After having our meal, we left Pin Long for the Kalaw. Throughout the journey from Pin long to Kalaw, all of us felt really excited and happy as we got the sense of being higher and higher by the drive along the zig-zag roads through mountain ranges. On the way, we stopped for a while and enjoyed the view to its fullest by taking pictures with breathtaking views of the mountain ranges surrounding us.

We reached Kalaw around 2:30 pm, checked into the Kalaw Garden hotel and rested in our rooms. In the evening, we left for Kalaw View Point to enjoy the sunset from 4,000 feet above sea level. There were many people who came to the place to enjoy the sunset as well, capturing mountains ranges amidst fog. We spent our evening there taking photos, and chatting while letting ourselves fully enjoy the nature around us.

We then had our dinner at the famous Indian restaurant "Nepali", where foods such as Biryani, Roti Canai, Chapati and Aloo Poori are best-sellers. When we had checked the temperature, it was 12 degrees Celsius. What a cool night!

On 5 January, we got up early and left for Ywangan around 6:00 am. Along the way to Ywangan village, we witnessed many beautiful sceneries. We were overjoyed, taking both group photos as well as solo photos under pine and eucalyptus trees on the way to Ywangan. Then we had our breakfast at Myin Kya Doe village, partaking in traditional Shan food such as Shan noodles, Tofu and fried pork snacks.

When we arrived Ywangan, we visited 'Mya Tha Bate' Blue Water Lagoon, which is a must-visit place. The water color in the pond is crystal-blue and the lagoon is really mysterious, due to its colors and great natural beauty. We took a tour around Blue Water Lagoon and took photos then walked to the nearby waterfall, enjoying the scenes around us. It was truly amazing to have visited such lovely place.

We then left Blue Water Lagoon to shop at the Kalaw market for trinkets and souvenirs. In the evening, we visited Kalaw Café and had snacks and brewed coffee. After having coffee, we drove to Taunggyi, which took us nearly two hours. When we arrived, we went directly to the Upper House Café run by one of the Motourlogue team members, Sai Zom Pha. We had a really nice dinner and enjoyed the overlooking sight of Taunggyi city. The view we saw from the café was really pleasant and lovely. After our meal, we drove back into the city.

When we got back to the hotel in Kalaw, we pampered ourselves with karaoke – available within the compound of the hotel. How lucky we were! We sang in a variety of music and melodies in both groups or individually. We were overjoyed to sing at the top of our lungs.

The next morning, we bid farewell to Kalaw and made our way back home. We arrived back to Yangon at night. To sum it up, our trip to Kalaw during the holidays was a bit rushed but what we got during the trip was invaluable – visiting Kalaw, YwaNga and Taunggyi in a very short period of time with lovely teammates, and building stronger bonds than ever before. ■





Safety-First Culture Raises OHS Awareness of Community Trainees

Pyae Pyae Phyoo

Myint & Associates Offshore Supply Base Limited (M&AOSB) is committed to continuously improving our health and safety performance, and embedding a safety-first culture consistent with our fundamental goals which include "Zero Accidents" and "No Harm to People". In line with our health and safety goals, our CSR program included two-day introductory courses to raise awareness of occupational health and safety (OHS) of the community trainees for four times.

The OHS trainings intended to raise participants' awareness of workplace hazards and diseases, and to nurture a safe working environment as well as safety culture. The training covered several topics: "Introduction to Safety Management", "Safety Terminology", "Safety Law & Regulation", "Responsibilities in Safety Management", "Hazard Identification and Risk Assessment", "Risk Control Measures", "PPE, Electrical Safety", "Machinery Safety", "Working at Height Safety", "Material Handling", "Occupational Health", "Fire Safety", and "Emergency Action Plan".

The first OHS training was conducted in Nanttharpu Village Tract from July 25 – 26, 2019; the second and third trainings were conducted in Nga Yoke Kaung Town and Kyway Chaing Village Tract from August 29 to September 1, 2019; and the last training took place at Aung Thu Kha Monastery in Nanttharpu Village Tract on January 20 – 21, 2020. A total of 108 community stakeholders successfully completed the OHS trainings provided by WIN OSHE Safety Academy -- Myanmar's leading national provider of safety, health, environment and quality solutions. As part of our CSR initiatives, we encourage all local trainees to complete those OHS courses before attending construction skills trainings. We will continue to adhere to our HSE policy in all areas of our operations as we believe "No activity is so important that it cannot be done safely." ■



M&AOSB Promotes Awareness on Reproductive Health and WASH Knowledge among Young People

Pyae Pyae Phyoo

As an accountable and responsible business, M&AOSB has seized the opportunity to improve the community's health literacy in collaboration with the Department of Public Health, Ministry of Health and Sports. M&AOSB recognizes the importance of promoting health awareness and knowledge in the community as one of our social responsibilities.

We implemented CSR health initiatives by organizing awareness sessions on reproductive health, sexually transmitted diseases and WASH (water, sanitation and hygiene) among the young community members on 11, 13, and 14 February 2020. During the sessions, sub-township Medical Officer Dr. Aung Myo Thant, Public Health Supervisor (1) U Han Zaw Tun, Public Health Supervisor (2) Daw Ei Mon Kyaw, and Public Health Supervisor (2) Daw Su Wai Aung educated attendees about sexually transmitted diseases, water-borne diseases, and the importance of basic hygiene. The speakers also shared ways to prevent said diseases, and shared motivations for encouraging healthy practices in day-to-day activities.

The three-day health awareness benefited a total of 419 teenage students and youths in Nanttharpu Village Tract, Kyway Chaing Village Tract, and Nga Yoke Kaung Town around the M&AOSB project area. The awareness sessions were conducted separately with students and youths in order to foster understanding and a safe-space to openly ask questions. The health-talk encouraged the participants to pursue preventative actions, avoid unhealthy behaviors, safeguard their health, and adopt positive attitudes to their own well-being. ■





Assessing Community Needs, Empowering the Community

Pyae Pyae Phyoe

Everyone has needs and wants. 'Needs' represents the basic necessities while 'wants' indicates desires. For social development, it is necessary to distinguish between needs and wants within our society – assessing actual necessities.

A needs assessment is a systematic approach to studying the state of knowledge, ability, interest, or attitude of a defined audience or group involving a particular subject. Needs assessments are conducted to learn about important issues and public problems in order to design effective development programs.

A community needs assessment to identify the strengths and resources available within the community in order to meet the community needs, according to Child Welfare Information Gateway. The assessment focuses on the capabilities of the community and provides a framework for developing and identifying services and solutions, and building communities. Focus group participants indicate on their needs assessments how important, or unimportant, generated issues are.



Before developing a new CSR program, M&AOSB always researches the gaps between the host community and the organization by conducting a community-needs assessment. We believe appropriate needs assessment is crucial to implementing effective and sustainable community development projects – it is one of the main steps in CSR program planning. Our attempts also include researching community resources, engaging with community members, and developing new community partnerships.

While trying our best to be a good neighbor for our host community, improving mutual understanding by listening to community voices, the assessment plays a critical role in guiding decision-making and priority-setting for our CSR program with the involvement of local community members in the process.



At M&AOSB, we work with our key stakeholders in the community to ensure responsible and sustainable business practices that encourage partnerships to address challenges together. We annually conduct a community needs assessment survey with local members in Nantharpu Village Tract, Kyway Chaing Village Tract, and Nga Yoke Kaung Town for improving current performance and preparing CSR work programs for the upcoming fiscal year. Last December, a series of needs-assessment meetings were conducted with the following key objectives:

- Identify the real needs of the community regarding public infrastructure, capacity of the development committee, and vocational trainings for the community.
- Understand the concept and long-term sustainability for the community
- Understand the ownership of development activities for the community.

M&AOSB CSR team developed Needs Assessment Forms to implement initial assessment with the community. The assessments were led and facilitated by community leaders with support from M&AOSB CSR field staff and community-based volunteers, since community members were not familiar with those activities before. The priority needs have been coming out after discussing within the community.

Final assessments were carried out with the participation of village authorities, elders, members and community-based volunteers to identify needs as well as community concerns, and set priorities for future action. The assessments identified the needs of public infrastructure, capacity-building training for the village development committee, and vocational trainings for the community. The discussions also allowed us to strengthen the sustainability of the stakeholder partnership and to develop our community investment initiatives. This bottom-up approach will continuously empower the community to participate and to have a say in the sustainable development process. ■



MPRL E&P Group of Companies' Service Year Awards Ceremony



14th Blood Donation by the Staff of MPRL E&P Group of Companies





U Moe Myint & Family's Educational Foundation

Scholarship Program for Talented Myanmar Nationals



Student Name	Mg Kyaw Su Thawe
Father's Name	U Khin Maung Than
Position	Manager
Company	Yangon Sailing Club
Academic Year	Third Year
University Name	University of Dagon
Major	Geology



Student Name	Mg Zwe Thura
Father's Name	U Zaw Wan
Position	Foreman-2
Company	Yangon Sailing Club
Academic Year	Third Year
University Name	University of Dagon
Major	Geology



Student Name	Ma May Myat Noe
Father's Name	U Thein Soe
Position	Bar Helper
Company	Yangon Sailing Club
Academic Year	First Year
University Name	University of Yangon
Major	Geology

Fresh Scholars Supported by U Moe Myint & Family's Educational Foundation



Student Name	Mg Paing Hein Kyaw
Father's Name	U Thike Soe
Position	Government Engagement Manager
Company	M&AOSB
Academic Year	First Year
University Name	University of Yangon
Major	Anthropology

Academic Year
2019-2020



Student Name	Mg Thurain Naing Win
Father's Name	U Tint Naing Oo
Position	Senior Technician
Company	MPRL E&P
Academic Year	First Year
University Name	University of Technology (Than Lyin)
Major	Civil



Student Name	Ma Nway Poe Poe Kyaw
Father's Name	U Htay Zaw
Position	Senior Driver
Company	M&AS
Academic Year	First Year
University Name	University of Yangon
Major	Geography



Student Name	Ma Moe Thu Khaing
Father's Name	U Win Htike
Position	Senior Security
Company	M&AS
Academic Year	First Year
University Name	University of Computer
Major	Computer Science



Sunset Melody Unplugged Show at Yangon Sailing Club



Cleanup with The International School Yangon

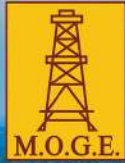
Cleanup with Network International School



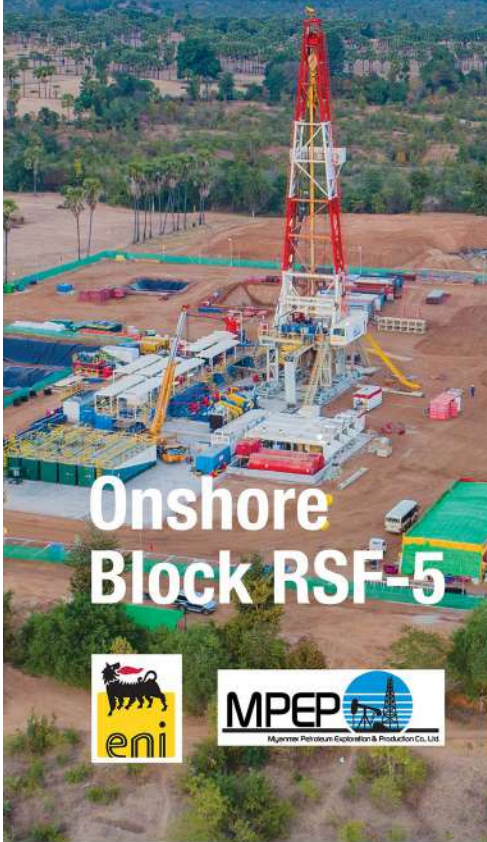


Discover Sailing Program for Local Schools





Shwe Nan Htike - 1 Exploration Well Commencement of Drilling Operations Ceremony



Onshore Block RSF-5



Management Site Visit Block RSF-5

