



Reservoir thinking

Drilling

Extraction

Separation

Pipelines

Stabilization

Maintenance

Gas

Refining

NGL

First in a continuing series

The Aramco hydrocarbon journey

See pages 4 and 5

the arabiansun

August 18, 2021 | Vol. LXXVI, No. 31
a weekly Aramco publication for employees

let's catch a phish

Usuf Middya clicks on "Report as Spam" first

The July phishing email test was a teaser about Puff Donuts' new location supposedly sent from Food & Beverages. Did you click on the fake notice? **Usuf Middya**, a principle scientist with the Strategic Modeling Technology De-

partment of the Petroleum Engineering and Development admin area, was observant and quick to report the email as spam.

Although highly tempting to click on

the link, this email had all the hallmarks of a phishing email test, including:

- A suspicious domain (Food & Beverages <fandb@forkandtablemag.net>)
- An attractive subject ("New Coffee

Corner")

- A large, bright red external tag ("PHISHING ALERT")
- Several misspelled words ("coffe" and "locatoins")
- An embedded link ("Click Here").

The top 3 positive performing organizations

1. Pipelines, Distribution & Terminals
2. Northern Area Oil Operations
3. Southern Area Oil Operations

thank you

The Information Security Department would like to extend its gratitude and appreciation to the top three positive performance Admin Areas for their noticeable efforts in scoring the lowest negative behavior; along with the highest positive behavior for the July simulated Phishing Email Test. Such efforts reflect positively on Aramco cybersecurity user behavior and elevates the resilience of Aramco's core business.

cybersecurity tip of the month

What is IoT? (or how my toaster talks to my TV)

By Rahaf B. Alkhadra

Device communication via IoT

With the evolution of the technology sector, individuals are now able to prepare their coffee and control their televisions using their mobile phones. Also, industries are now more dependent on technology to improve the quality of services they provide to their customers. These services and many more, are possible through the usage of the Internet of Things (IoT) technology.

IoT technology involves sharing data and information over various devices connected to the internet. These devices are not limited to wireless routers, rather it might refer to cellular networks or Bluetooth as well. All devices connected to the IoT can share and receive data, with no human interaction and involvement through sensors and the implementation of intelligence.

Things could go wrong

Although IoT is an important tech-



nology that has helped us in many different sectors and domains, there are different concerns associated with it. Cybersecurity and privacy risks are considered one of the main concerns of IoT. Cyber risks can result from low security measures that causes vulnerabilities in the IoT infrastructure. Such vulnerabilities can cause unauthorized access to systems, which leads to a

breach due to several reasons that will be highlighted.

The first reason would be due to weak password security measures, by using easy to guess passwords, or default passwords. Another reason is due to the lack of regular updates and implementation of security patches. The absence of regular updates to these

devices causes hackers to identify more vulnerabilities and exploit access to IoT device(s). The third cause is associated with the deficiency of data security mechanism used, such as encryption. For instance, if the data was not protected properly, any confidential and sensitive data can be accessed by hackers. This would result in privacy risks due to the missing cybersecurity measures that may eventually lead to personal and private data breaches. Finally, weak IoT device management on a company level introduces a risk as well. If no proper IoT device management is taken into consideration, it opens a pathway full of vulnerabilities for hackers to access the data, and perhaps alter it.

Minimize risk

To reduce the risks associated with IoT devices, three major actions should be taken. First, buy IoT devices from trusted sources. Second, protect IoT devices with complex passwords. Finally, keep them up-to-date and contact the retailer if you have any concerns or if suspicious activity is noticed.

Your voice

Can eating green make us go green?



By Laila A. Alabdrabalnabi
Dhahran

Laila.Alabdrabalnabi@aramco.com

The plant-based diet has gained popularity in the last few years. Many people have shifted their diet to plant-based and some have adapted a vegan lifestyle by excluding all forms of animal utilization. For example, they avoid wearing clothes made of animal leather and wearing cosmetic products tested on animals.

Consequently, the demand for plant-based meat is expected to grow over the coming years. But what are the reasons for the increasing popularity of a plant-based diet? Two of the most common reasons for converting to a plant-based diet are environmental sustainability and health benefits.

In terms of understanding the basis for environmental concerns, it helps to reflect on history. Global meat consumption has increased more than threefold over the past 50 years. The Food and Agriculture Organization of the United Nations estimated that we consume more than 335 million tons of meat every year. To satisfy this demand for meat, the industry has expanded to raise more ru-

minant animals. As a result, an excessive amount of methane is produced by this increase, which contributes significantly to global warming.

Following a plant-based diet will help in reducing meat production. Therefore, the atmosphere will be less polluted by methane. A study published in the *American Journal of Clinical Nutrition* showed that following a plant-based diet can reduce greenhouse gas emissions by 26% in comparison to a diet that is high in meat.

Those following a plant-based diet can still enjoy the sensation of meat without sacrificing taste. Companies such as Beyond Meat and Impossible Foods offer compelling products that have established comparable texture, flavor, and overall meat-like consumption experience. The plant-based products have been bolstered by a number of billionaire and celebrity investors, including Bill Gates, Richard Branson, Jay-Z, and Katy Perry. As a testament to the growing market rationale for these products, Be-

yond Meat became the world's first meat alternative company to become publicly traded in 2019, with its share stock price soaring 163% on its first day of trading.

In terms of the health benefits of following a plant-based diet, this form of diet has indeed been shown to help people in maintaining a healthy weight, reduce the risk of heart disease and type 2 diabetes. Although, there are considerations to bear in mind. For example, vitamin B12 can only be found in animal products. Therefore, following a plant-based diet requires taking a B12 supplement. Beyond this, it is worth noting that plant-based junk foods are readily available and widely consumed, such as French fries and highly processed products.

So, being healthy truly depends on the person. In general, you can follow a regular diet and still be healthy by eating in moderation and being mindful about what you put in your body as it affects your health in the long term, and your mood and energy in the short term.

One face to market Here it begins — SABIC takes on marketing role

Following its acquisition of a 70% stake in SABIC in June 2020, SABIC became the chemicals arm of Aramco amid an extensive range of optimization synergies and shared value creation initiatives that included feedstock allocation, stream and commercial integration, and human resources. Olivier Thorel, vice president of Chemicals, stated that the strategic importance of this integration is in line with both SABIC's and Aramco's long-term vision to be the world's leading integrated energy and chemicals company.

Among the most important developments to date is the realignment of marketing responsibilities between SABIC and the Aramco Trading Company (ATC) as part of Aramco's "one face to market" strategy. Nasser Lasloum, chemicals director of Aramco Asia, commented that, "The changes will drive further operational efficiencies, strengthen the brands of both companies and their combined products and services offering, and help to maintain competi-

tiveness. Customers will benefit from improved product range and availability, ordering and points of sale, supply chain, shipping reliability, and after-market services and solutions."

What was achieved

The marketing of polymer products from the first three Aramco affiliates of Sadara, S-Oil, and FREP have been officially transferred to SABIC. SABIC took FREP off taking rights to market, both existing products and extensions, to its portfolio, including high-density polyethylene, linear low-density polyethylene, low-density polyethylene,

polypropylene copolymer, and polypropylene homopolymer. Similar arrangements were made with S-Oil and Sadara to have their respective products to be off taken by SABIC too. Two other Aramco affiliates, Petro Rabigh and PRefChem, will soon follow the first three in having their marketing rights transferred by the end of 2021 after meeting current contractual commitments and operational readiness requirements. Abdulaziz Al Hamdan,

head of the Aramco-SABIC Commercial Integration Team, commented on the successful transition of the business by stating that, "We started the business, we nurtured it, we watched it grow, and now we handed it over to SABIC at a high note."

To ensure business continuity, a customer communication event was organized with attendees representing major partners along with Aramco and SABIC to clearly explain these sales and marketing adjustments and make assurances that they will have no impact on business.

Equally important to the success of this large-scale endeavor was the cooperation between the numerous Human Resources functions, all of which aligned in a highly coordinated effort to ensure that all necessary personnel movement and mutual support were agreed upon by all parties involved.



Aramco invests in giant Saudi Arabia solar project

Aramco was announced this week as a 30% investor to build Saudi Arabia's largest solar farm.

With an investment value of SAR3.4 billion, the 1,500 megawatt Sudair Solar PV project is part of the Kingdom's commitment to deploy a variety of low carbon energy solutions in Saudi Arabia.

Aramco's stake, held by the Saudi Aramco Power Company, is invested alongside ACWA Power and the Water & Electricity Holding Company (Badeel), who each hold 35%.

Badeel is a company fully owned by Saudi Arabia's sovereign wealth fund, the Public Investment Fund (PIF).

The Sudair project is located at Sudair Industrial City, a planned city near Riyadh, and represents the first project under the PIF's renewable energy program.

World's largest oil exporter expanding renewables

In March this year, HRH Prince Mohammed bin Salman Al-Saud reaffirmed a five-year-old commitment to power half the Kingdom with renewable energy sources by 2030.

At the launch of the Green Saudi and Green Middle East initiatives, HRH the



Aramco's 30% investment in the Sudair Solar PV project reflects the company's efforts to advancing sustainable energy solutions within its operations.

Crown Prince noted that, as a leading global oil producer, the Kingdom fully recognizes its share of responsibility in advancing the fight against the climate crisis.

"Just as the Kingdom underpinned energy markets during the oil and gas era, it is going to become a global leader in forging a greener world," he said.

Advancing sustainable energy solutions




Using bifacial modules with tracking technology, the plant is set to deliver a highly efficient performance and be capable of powering 185,000 homes daily.

Senior vice president of Downstream,

Mohammed Y. Al Qahtani, said Aramco's involvement in the Sudair project reflected the company's efforts to advance sustainable energy solutions, both within its own operations and the broader energy network.

"While hydrocarbons will continue to be a vital part of the energy mix for decades to come, renewables like solar have an important role to play in helping achieve the world's climate goals," said Al Qahtani.

"Sudair will support Saudi Arabia's ambition to generate part of the nation's power needs from renewable energy by 2030, and is one of several low carbon energy options being deployed by Aramco," he noted.

-  **SAR3.4 B** | project's investment value
-  **1,500** | magawatt power production capacity
-  **185,000** | homes, capable of powering

The Aramco hydrocarbon journey (1)

Take a behind-the-scenes glimpse into an Aramco hydrocarbon's path with the first in our story series — from reservoir thinking and beyond

Reservoir thinking | Decades of greenhouse gas mitigation in our operational DNA

by Janet Pinheiro

All oils are not equal

Arabian oils have a place in our carbon conscious world.

Lying beneath the Kingdom's deserts and offshore waters, their high gravity scales and low upstream carbon intensity rank them among some of the world's finest crude oil.

Nevertheless, Arabian oils are not just a geological gift.

Oil and gas reserves carry different levels of associated greenhouse gas emissions.

Without production diligence, even a pure-quality oil can carry a high carbon intensity.

Smart thinking and well-trained people are key to low carbon oils. As is wisely maintained infrastructure, and a futuristic helping hand from technology.

And, just like slow and steady oil production is best for mitigation, so is careful reservoir thinking.

Oil is needed by the modern world for the foreseeable future.

Together, our people and our oil, make us unrivalled.

Exploration is the early stage of an Aramco hydrocarbon's journey, and our exploration history goes back more than 80 years.

Through advancements in seismic imaging, Aramco has been able to map subsurface areas across the Kingdom.

With the growing amount of data being collected, we have refined the analysis of that data to more precise exploration of hydrocarbons, leading to far greater efficiency and reduction in costs.

Dhahran — Oil and gas is not a calm lake of fluid.

Instead, like honey in a sponge, it tempestuously hides in porous underground rock spaces, behaving in a complex manner.

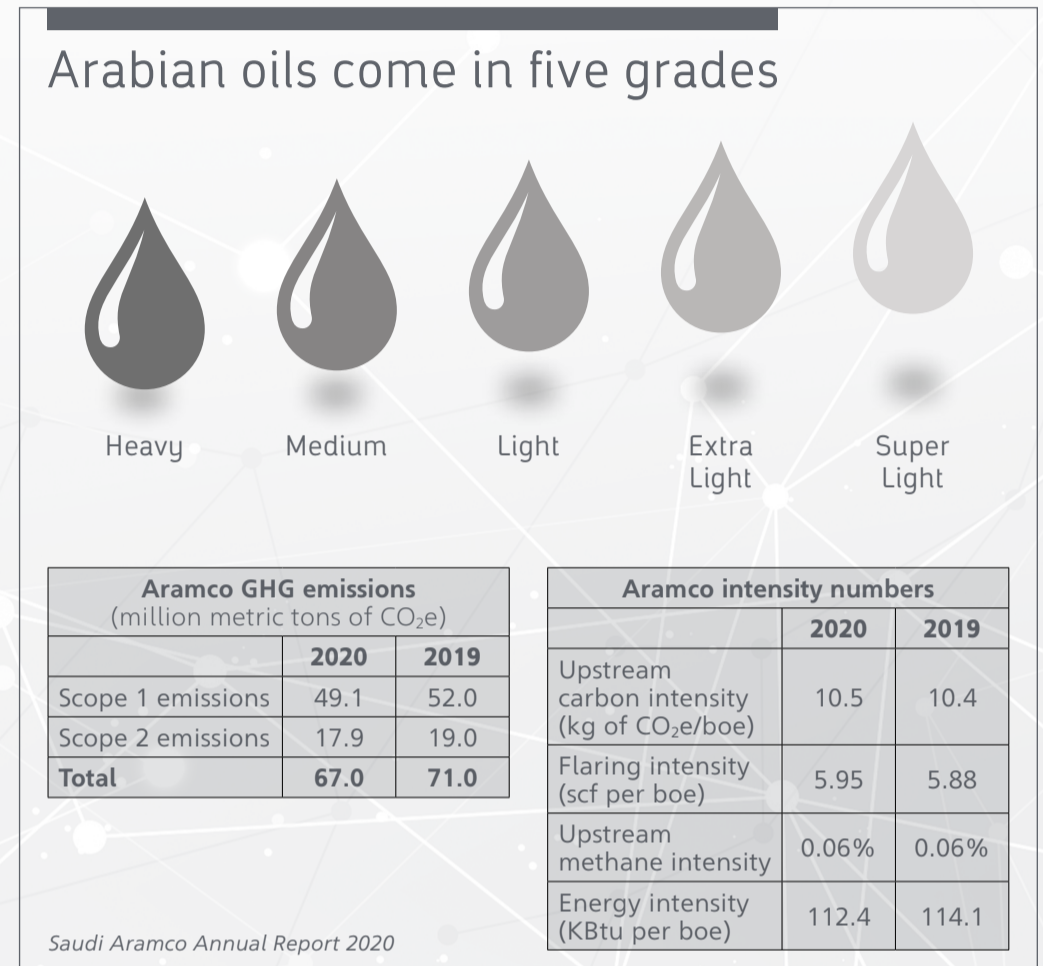
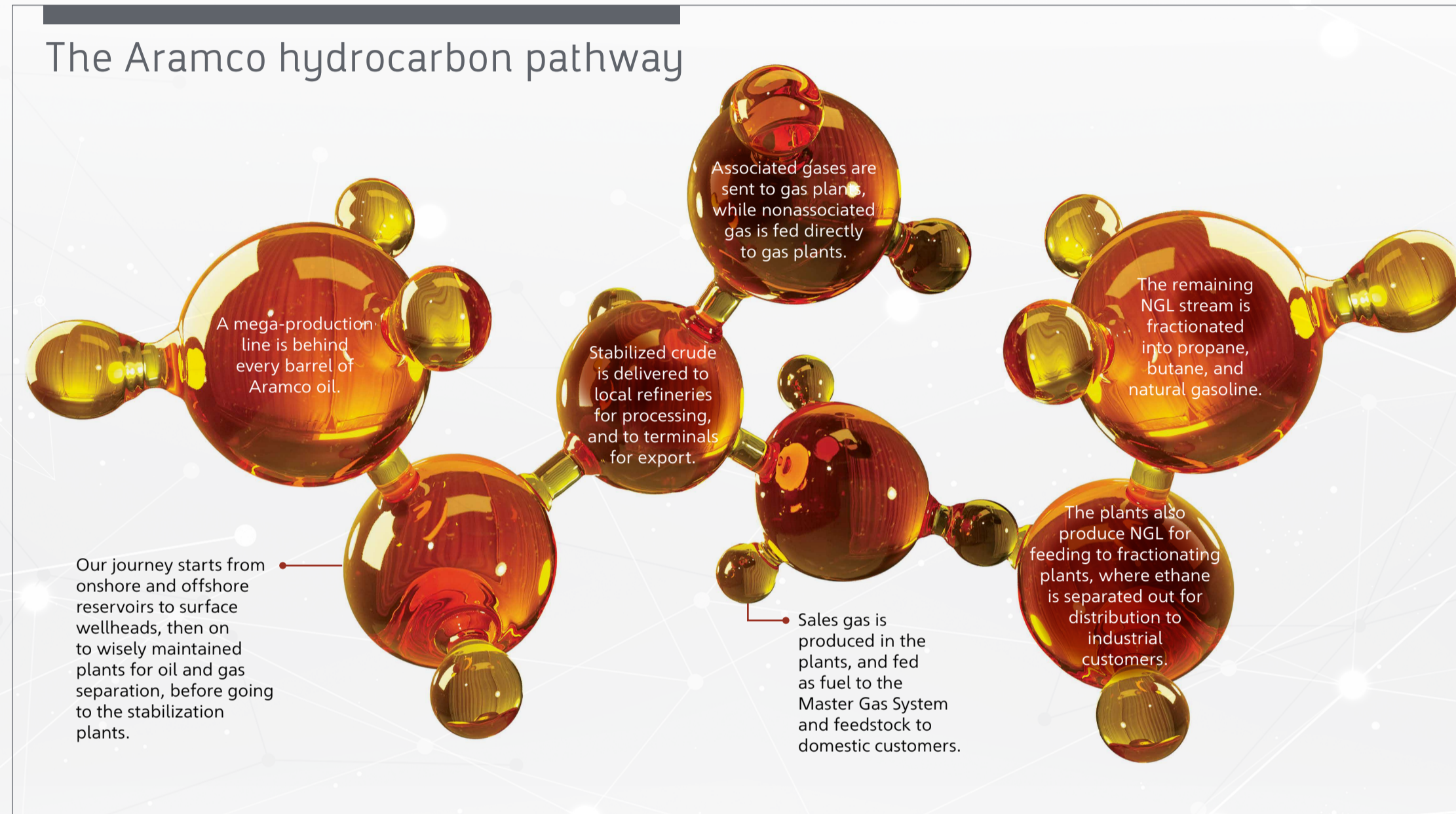
Hydrocarbons, on their way to the surface, also alter between liquid and gaseous phases.

Before hydrocarbons are unlocked from an Aramco operated oil and gas reservoir, many smart minds model the complex makeup of what lies beneath. Significantly knowing, and applying, a reservoir's deepest secrets before extracting its hydrocarbons to the surface and beyond, yields better greenhouse gas (GHG) management.

Slow, steady, sustainable

Aramco works its reservoirs differently to the typical industry practice where production rates per field are maximized.

A rapid pace of oil extraction risks damaging the oil-bearing strata and exacerbating emissions.



produce what levels of fluids, and how.

For many decades, most of Aramco's crude oil fields have produced at low annual depletion rates of 1% to 2%, relative to estimated ultimate recovery.

For each barrel of oil equivalent Aramco produces, its GHG emissions — measured in terms of carbon dioxide equivalent (CO₂e) — are among the lowest in the industry.

Sophisticated thinking for ultimate recovery

Aramco uses leading technology and advanced innovation to discover, and model, the complex secrets of what lies beneath.

In the early 1990s, international oil companies started to use 3-D seismic technology to better define oil and gas fields, allowing smaller fields to be efficiently produced using advanced systems such as horizontal completions.

Aramco applies these technologies to the long-term reservoir management of its giant fields.

The combination of accurate geological models, and well placed extended reach drilling with horizontal completions, led to further reduced costs, less water production, less emissions, and improved

recovery efficiencies.

Reservoir simulation models

Today, Aramco's producing reservoirs have highly sophisticated reservoir simulation models, which are updated continuously with new drilling and production data. The data is the basis for developing and evaluating alternative reservoir management strategies.

Many key reservoir management technologies were developed in Aramco's own research facilities, such as the company's proprietary reservoir simulation program Ter-aPOWERS, GeoDRIVE for subsurface mapping, and smart flooding for injecting water.

The Fourth Industrial Revolution offered new possibilities to take reservoir management to new horizons leveraging new capabilities, machine learning, and artificial intelligence in areas such as well placement, water management, and modeling.

Using data analytics and simulation models to manage reservoirs — in combination with good old-fashioned brainpower from Aramco's expert geophysicists, geologists, petroleum engineers, and production operations staff — means Aramco reaches significantly higher recovery factors than what is generally recovered by the industry.



Aramco's Upstream Development Strategy and Reserves Department's Hasan A. Al-Ahmadi, who holds a doctorate in petroleum economics from Texas A&M University, USA, works collaboratively with his counterparts across Petroleum Engineering & Development to develop and manage Aramco's world-class reservoirs.

At Aramco, we listen to our reservoirs, and are able to decode the reservoir language.

Sometimes we reduce the offtake from some older reservoirs so they can take a rest, and increase it from the younger reservoirs. This way, the older reservoirs live longer, and give more. A slow and steady pace avoids overstressing reservoirs, and is more sustainable for both the environment and business.

Thoughtful crude slate

The Kingdom's Hydrocarbons Law requires Saudi Arabia's reservoirs to be managed for long-term value and productivity.

Behind one of the world's largest conventional proved liquids reserves is an intricate mix of teams in Aramco's Dhahran headquarters.

Their careful thinking about the company's reservoirs inputs into production decisions on the company's "crude slate." The slate is a summary of an annual extensive list deciding which of the company's hundreds of reservoirs will

New technology breaks ground in Jazan

Ground softness problem leads to rigid solution at Jazan Refinery tank farm site

By Sami H. Al-Najrani, Zia U. Rehman, Percival P. Magali, and Bassam H. Dewan

Workers at the Jazan Refinery tank farm are employing a new soil improvement technique that claims to be safer, cheaper, and faster than traditional methods used by the company after weak ground strength was discovered at a site where massive kerosene tanks were to be built.

Weak sand structure

The Jazan Refinery to Abha pipeline project will service the Southern Region through a 92-kilometer long pipeline. As part of the project, three 200,000 barrel kerosene tanks need to be constructed in the Jazan tank farm area. A geotechnical investigation report, however, found that the ground strength at the site is insufficient to carry the tank loads.

Strengthening capacity

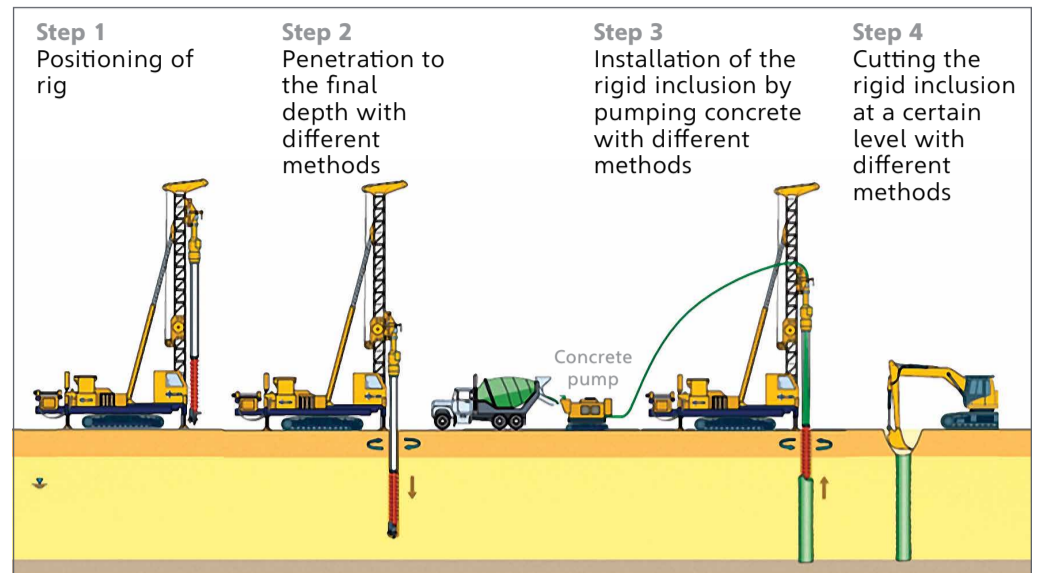
After much research and more dis-

cussion, the Distribution and Terminal Projects Department (D&TPD) reported that new "rigid inclusion" technology was best to address the ground strength problem. Rigid inclusions are columns installed in weak soil to reduce settlement and strengthen bearing capacity.

A working platform is installed and a rig machine fitted with a hollow displacement auger is moved to the site. The hollow auger penetrates the ground to the required depth and concrete is pumped into the borehole while the auger is slowly pulled out. The concrete fill continues to the required height in a process that takes between 15 and 20 minutes, considerably faster than traditional techniques. A total of 705 boreholes were completed in three weeks using two drilling rigs.

A faster concrete pour

The D&TPD found that as a result of faster column pours, rigid inclusion technology is more cost-effective compared to other ground improvement



methods, such as stone columns, which require more columns to be produced over a longer period of time. The technology is also more efficient.

Safer rigs, fewer trucks

In addition, this technology is safer than traditional methods because drill-

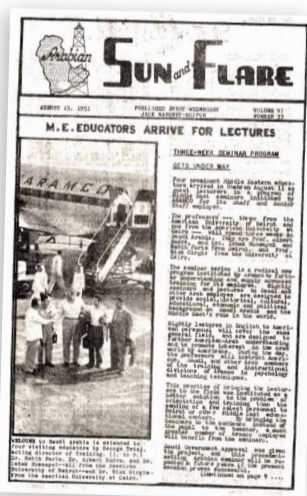
ing rigs are used instead of cranes. The former are sturdier and perform better in high wind areas. Fewer concrete mixer trucks are also required, adding to reduced traffic around the project. This was the first time the solution was implemented at Aramco at scale, making the project safer, cheaper, and faster than traditional solutions.

Memory Lane: A giant of the sea, new accommodations, and a surprise trip to the Little League World Series

Ten years ago, a group of Dhahran-based ballplayers advanced again to the Little League World Series after irregularities were identified in passports of players on the Ugandan regional championship team. Here are some of the more interesting headlines over the past 70 years.

Aug. 15, 1951

Three-week seminar program gets under way



Four prominent Middle Eastern educators arrived in Dhahran on Aug. 11 as guest lecturers in a program of Middle East seminars initiated by Aramco for its staff and senior staff employees.

The professors — three from the American University of Beirut and one from the American University at Cairo — will spend three weeks in Saudi Arabia.

They are professor Albert Badrea and

doctors Isha Hussayni and Nabih Faris from Beirut, and professor Rizk Girgis from the University at Cairo.

The seminar series is a radical new program instituted by Aramco to further understanding and supply advanced training for its employees. Nightly seminars and lectures to Saudi and other employees are designed to provide social, historical, cultural, education, economic, and political background on Saudi Arabia and the Middle East's role in the world.

Aug. 19, 1981

New units ready for fall occupancy

An Open House was held recently at the King's Court Apartments on King's Road in Dhahran, to the delight of many



single employees.

Offerings are being made now for fall occupancy of the soon-to-be-completed first building, which will provide 45 units for single males. An additional 135 units, some of which will be designated for female occupancy, are expected to become available by the end of this year. The 14-building complex, when completed, will provide a total of 525 units.

The construction of two additional buildings, containing 45 and 24 units respectively, has recently begun on Canyon Road at the site of the former AA Garage. These buildings will be identical to those in the King's Court complex and are scheduled for completion in 1982.

Similar buildings are currently under construction in Abqaiq, Ras Tanura, and 'Udhailiyah.

Aug. 17, 2011

Little leaguers seize second chance for shot at series

An unusual twist of fate has the Arabian-American Little League All-Star Baseball Team representing the Middle East-Africa Region at the World Series



Aug. 19 in Williamsport, Pennsylvania, U.S.

Players and parents thought their season had come to an end at the Regional Finals in Kutno, Poland, when the team lost 6-4 to Uganda in the championship game. However, irregularities in many of the Ugandan players' required U.S. visa documents put them out of the running.

On Aug. 2, the president of the Little League extended an invitation to the Saudi squad to play in the 2011 World Series.

"We think we will represent the MENA region well," said travel team manager Neil Wilkey.



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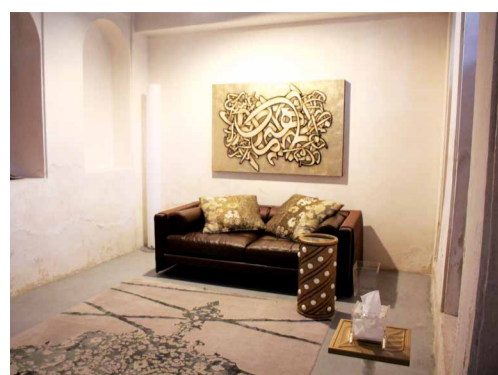
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A tale of two realities in the ancient Bahraini capital of al Muharraq

Images & article by Chiara Ciampricotti Iacoangeli

Exploring the island nation of Bahrain means venturing between two contrasting realities: The futuristic modern architecture and the ancient fortresses by the sea. On an island so attentive to modernity you would never expect to find in the downtown alleys the beauty of dwellings from the past.

You need to reach the ancient capital of al Muharraq, the third largest city, which at the beginning of the last century was the center of major public projects. Its history is strewn with different civilizations.

Over the past decade, the Shaikha Mai bint Mohammed Al Khalifa restoration project has brought back to life the district's traditional houses, each dedicated to an aspect of the country's cultural heritage. Some of them have retained their original functionality, while others have been converted to new purposes.

Houses hide in narrow, winding lanes

Reaching the area of al Muharraq, traditional Islamic houses hide in narrow, winding lanes where the color white dominates all around. Check out these houses, which are also part of the Pearling Path, a U.N. World Heritage site, and worth exploring on foot. It has become an ideal setting for a break, where you can spend time chatting or enjoy a good cup of coffee. But, above all, the area has acquired a leading role in the cultural life of the country.

The descriptions of some buildings belonging to the Muharraq project are interesting, because they tell individual stories.

A fine example of Gulf architecture

The former residence of ruler Sheikh Isa bin Ali Al Khalifa is a fine example of Gulf Islamic architecture, where you can see inner courtyards, traditional



porticoes and wall carvings. The chief sitting room downstairs was kept cool in the summer by the downdraft from the *badqeer*, or wind tower, the shutters on which could be closed in the winter.

A mission of conservation, interpretation

The House of Architectural Heritage combines a mission of conservation and interpretation of architectural heritage with a new inclusive approach to the idea of exhibition space. Leopold Banchini Architects gave it retractable glass walls that open up to the surroundings. Noura Al Sayeh Holtrop and Leopold Banchini designed the architectural archive and exhibition space for an empty site in the city known for its dense urban fabric and traditional Bahraini houses. The house

hosts the archival collection of sketches and drawings by the architect John Yarwood, as well as serving as an exhibition space. Rather than imitating the local vernacular, the project team decided to introduce a contemporary architectural expression that reflects the city's constant evolution.

A magnificently renovated house

The Abdulla Al Zayed Press Heritage House is the house of the founder of the first weekly newspaper in Bahrain and the Gulf, *Al Bahrain*, which was launched in 1934. This magnificently renovated house contains old copies of magazines, newspapers, and some interesting correspondence. An annex housing books and other documents features a spectacular triple-volume

brass wall that glistens under a modern skylight. The effect is inspiring.

The dying art of Kurar embroidery

The Kurar House was established to preserve the unique but dying Bahraini art of Kurar embroidery. Kurar is a form of embroidery using a golden thread. The building provides a venue for elderly Bahraini ladies to pass on the art of the Kurar to younger generations.

A place of dialogue with culture

Nestled in the heart of al Muharraq is the Shaikh Ebrahim bin Mohammed Al Khalifa Center for Culture and Research. The Center was founded by Shaikha Mai Al Khalifa as a place of dialogue with Bahraini culture. Shaikh Ebrahim was the first intellectual to establish a cultural *majlis*, or council, in al Muharraq. On Monday nights, you can see artists and intellectuals gathered here for lectures and performances in a state-of-the-art auditorium.

A visit to al Muharraq gives the tourist the opportunity to dive into a past that is not only elegantly revived in new architecture, but also present in the story that speaks of the view lived by and in the buildings.



the arabian sun



Memory Lane: A giant of the sea, new accommodations, and a surprise trip to the Little League World Series

see page 6

JHAH launches its 2021 program of on-site rotations with expert physicians from Johns Hopkins Medicine (JHM)

<p>د. أوما سريكوماران رئيس قسم جراحة العظام بجامعة جونز هوبكنز في مستشفى مقاطعة هوارد العام أستاذ مشارك في جراحة العظام</p> <p>Uma Srikumaran, MD Chair, Johns Hopkins Orthopedic Surgery at Howard County General Hospital Associate Professor of Orthopedic Surgery</p>	<p>د. إدوارد رايت مدير قسم الطب المصني البولي ورئيس قسم أمراض الجهاز البولي البروفيسور المساعد في قسم أمراض الجهاز البولي</p> <p>Edward Wright, MD Director, Division of Reconstructive and Neurological Urology Chief of Urology at Johns Hopkins Bayview Medical Center</p>	<p>د. هيثم القرين أستاذ مساعد في طب التخدير والعناية المركزة</p> <p>Haitham Al Grain, MD Assistant Professor of Anesthesiology and Critical Care Medicine</p>
<p>د. مهران حبيبي المدير الطبي، مركز جونز هوبكنز لسرطان الثدي في جامعة جونز هوبكنز باينفو</p> <p>Mehran Habibi, MD Medical Director, Johns Hopkins Breast Center at Johns Hopkins Bayview Medical Center Associate Professor of Surgery</p>	<p>د. برايان متلاغا مدير مركز ستيفنز للأمراض الحصى وأستاذ في جراحة المسالك البولية</p> <p>Brian Richard Matlaga, MD, MPH Director, The Stephens Center for Stone Disease Professor of Urology</p>	<p>د. عاطف زاهر مساعد مدير برنامج تخصص الأشعة التشخيصية أستاذ مشارك في الطب الإشعاعي والعلوم الإشعاعية</p> <p>Atif Zaheer, MD Associate Professor of Radiology and Radiological Science Associate Program Director Diagnostic Radiology Residency</p>
<p>د. هاريكريشنا تاندري مدير مشارك برنامج ظل تنسح البطين الأيمن (ARVD) أستاذ مشارك في الطب</p> <p>Harikrishna Tandri, MBBS Co-Director, Arrhythmogenic Right Ventricular Dysplasia (ARVD) Program Associate Professor of Medicine</p>	<p>د. مايكل آلن شويتزر مدير مركز جونز هوبكنز لجراحة السمنة أستاذ مشارك في قسم الجراحة</p> <p>Michael Allen Schweitzer, MD Director, Johns Hopkins Center for Bariatric Surgery Associate Professor of Surgery</p>	<p>د. رانجيت فارغيز المدير الطبي لقيادة إعوجاح المفاصل أستاذ مساعد لجراحة العظام</p> <p>Ranjit Vaghese, MBBS Medical Director, Arthrogyposis Clinic Assistant Professor of Orthopedic Surgery</p>

Johns Hopkins Medicine U.S. urology expert, Dr. Brian Matlaga, on medical rotation at JHAH Aug. 29 to Sept. 2, 2021

If you are JHAH registered, have experienced kidney stones, and wish to request a consultation with Dr. Matlaga, please speak with your Primary Care physician by Aug. 29 by calling 800-305-4444, or log in to MyChart.



Brian Matlaga, M.D., M.P.H.
Director, the Stephens Center for Stone Disease, professor of Urology

Dr. Matlaga is an internationally recognized expert in the medical and surgical management of patients with urinary stone disease. This expertise is built on his academic investigations of the pathophysiology and epidemiology of stone formation, as well as the advancement of minimally invasive surgical techniques.

Visit Johns Hopkins Medicine On-site to discover more about JHM On-site program, including:

- Physician profiles
- How to make an appointment
- The schedule of upcoming visits



Scan the QR code to visit the JHM On-site webpage.

On Aug. 15, 2021, Johns Hopkins Aramco Healthcare (JHAH) began the 2021 "JHM On-site" program, consisting of medical rotations with expert physicians from our partner health care system Johns Hopkins Medicine (JHM).

Throughout the program we are welcoming doctors from a wide range of specialties. These high-caliber physicians will share their expertise on the ground at JHAH facilities, taking part in reviewing cases, providing face-to-face patient consultations, and performing surgeries for our JHAH patients.

The first physician in the 2021 cycle is Dr. Haitham Al Grain. Dr. Al Grain is an assistant professor of Anesthesiology and Critical Care Medicine at the Johns Hopkins University School of Medicine. From Aug. 15 to 26, Dr. Al Grain will work alongside his JHAH counterparts to provide our patients with pain management and anesthesia services. While Dr. Al Grain's visit was allotted for prescheduled complex cases and procedures, upcoming specialists, including Dr. Brian Matlaga, Urologist, and Dr. Uma Srikumaran, Orthopedic Surgeon, and Dr. Michael Schweitzer, Bariatric Surgeon, will be available for patient consultations.

Together we can end the pandemic: Important COVID-19 vaccination update

In line with the Ministry of Health (MOH) directives, Johns Hopkins Aramco Healthcare (JHAH) is pleased to offer **second dose** vaccinations to **all vaccine eligible age groups** of Aramco employees and their eligible dependents who have received their first dose of the COVID-19 vaccine at JHAH.

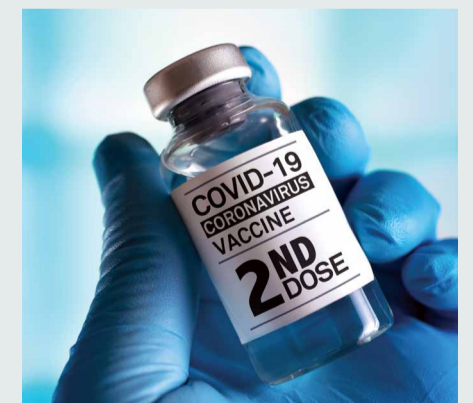
Information about the second dose

How do I book an appointment for the second dose of the vaccine?

You can book your appointment using MyChart if you are registered for care at JHAH. You can also contact our call center at 800-305-4444 to book an appointment.

I want to know more

You can learn more about the COVID-19 vaccination and second dose appointments at: [JHAH.com/COVID-19-Vax](https://www.jhaah.com/COVID-19-Vax).



#TakeTheStep **خذ الخطوة**
Get Vaccinated **خذ اللقاح**



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