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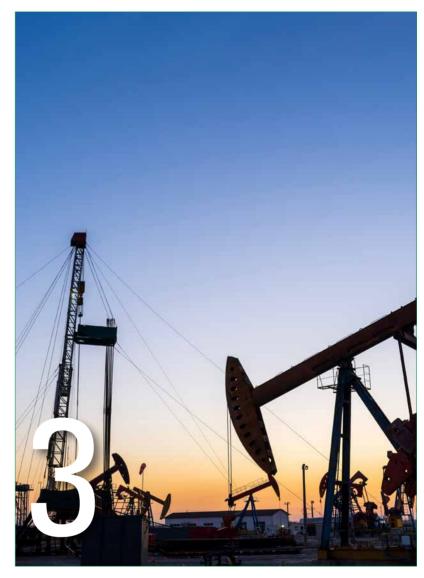
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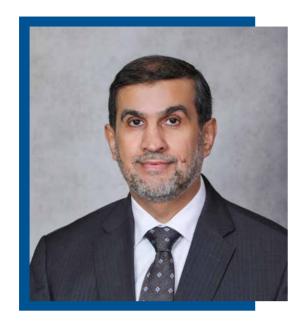


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Letter from the Editor



Kuwait Oil Company continues to exemplify leadership and resilience in an ever-evolving global energy landscape. Its steadfast commitment to innovation, heritage, and Sustainable Development distinguishes the Company as a beacon of progress in the oil and gas sector.

This issue of the Digest comes at a time where KOC's influence continues to extend beyond national borders, affirming its role as a key player in regional and international fields. From hosting high-level GCC meetings on oil and gas infrastructure protection to actively participating in prestigious forums such as the European Association of Geoscientists and Engineers (EAGE 2025), KOC

is shaping the future of the energy industry with both vision and expertise.

Locally, the Company's dedication to conservation and cultural heritage is equally compelling. In this context, we highlight initiatives such as the "Less Becomes More When You Save" conservation event, Scientific Center's Bahruna Expo, and the inclusion of the iconic Kuwait Towers on the ALECSO Arab Heritage List, testaments to our ongoing commitment to environmental stewardship and cultural pride.

As a standout feature in this issue, we proudly spotlight Claudia Al-Rashoud, whose dedication as a key chronicler of Kuwait's past has been instrumental in preserving and sharing the nation's rich history. Her insightful work bridges generations, offering readers a profound connection to Kuwait's cultural identity.

The Digest also pays tribute to pivotal moments and milestones, including the 35th anniversary of the Iraqi invasion of Kuwait and groundbreaking achievements in oil production at the Sabriyah Field. These stories underscore KOC's resilience and technical excellence.

Our coverage further embraces Kuwait's rich heritage through features on the National Museum's planetarium reopening and the vibrant annual Pearl Diving Festival. These endeavors connect us to our past while inspiring future generations.

In presenting these narratives, we invite you to explore the diverse and dynamic efforts shaping KOC's journey. From infrastructure and innovation to heritage and environment, this issue reflects the spirit of a Company that is deeply rooted in its identity yet boldly advancing toward tomorrow.

KOC HOSTS HIGH-LEVEL GCC MEETING ON OIL & GAS INFRASTRUCTURE PROTECTION AND CRISIS MANAGEMENT

Kuwait Oil Company hosted a high-level Gulf Cooperation Council (GCC) meeting focused on protecting oil and gas infrastructure and managing related crises. The event brought together top officials from the United Nations, GCC countries, and Kuwaiti authorities, emphasizing the critical importance of securing energy assets in an unstable regional environment.





This high-level GCC meeting underscored the collective commitment of Gulf countries, international organizations, and stakeholders to protect critical energy infrastructure against evolving threats, ensuring regional stability and sustained global energy security.

KOC's Role as a Leading Host

Known for its extensive expertise and well-equipped facilities, KOC is distinguished for hosting prominent events at national, regional, and international levels. These qualities made it an ideal host for the GCC meeting, which was organized by the GCC Emergency Management Center (EMC) in collaboration with the United Nations Office of Counter-Terrorism (UNOCT) based in Madrid.

The three-day meeting addressed vital topics related to energy security, especially given the sensitive circumstances affecting the region. KOC actively contributed to the discussions, reinforcing its role as a key player in regional energy security.

Opening Ceremony and Key Participants

The opening session was attended by several highranking officials, including Assistant Secretary-General for Security Affairs of the GCC Brigadier General Hamad Al-Ameemi, Chairman of the GCC EMC Brigadier General Dr. Rashid Al-Marri, KOC Deputy CEO for Commercial & Corporate Services Musaed Al-Rasheed, KOC HSE Group Manager Nasser Al-Buhairi, Representative of the United Nations Secretary-General & Resident Coordinator in the State of Kuwait Dr. Ghada El-Taher, and Russian Ambassador to the State of Kuwait Vladimir Zheltov. Coordination was led by Ignacio Ibáñez, Head of the UNOCT Madrid Programme Office and Coordinator of the UNOCT Global Programme on Protection of Vulnerable Targets.

The meeting held at the Ahmad Al-Jaber Oil & Gas Exhibition, began with recorded speeches from GCC Secretary-General His Excellency Jasem Al-Budaiwi, and UN Under-Secretary-General for Counter-Terrorism Vladimir Voronkov. On behalf of KOC, DCEO Musaed Al-Rasheed expressed



pride in hosting the event during such a critical time, highlighting the challenges facing the oil and gas industry and emphasizing the Gulf region's vital role in global energy market stability.

The event was attended by representatives of GCC countries, member states, friendly nations, close allies, and officials from various Kuwaiti government entities. It featured speeches by a number of attending officials and panel discussions addressing several related issues and seeking practical solutions. Representing Kuwait, KOC's HSE Group Manager Nasser Al-Buhairi joined senior officials from Gulf states in a panel discussion on energy security and the current and future threats facing the oil and gas industry in the region and worldwide.

GCC Secretary-General's Address

In a recorded speech broadcast during the meeting, Secretary-General of the Gulf Cooperation Council (GCC) His Excellency Jasem Al-Budaiwi welcomed the attendees to this important and critical event. He thanked KOC for its generous hospitality and the UNOCT for its ongoing support and collaboration. He emphasized the major role of the oil industry in light of increasing global energy demand and the significant responsibility Gulf countries carry in adapting to the global Energy Transition while ensuring regional stability and meeting domestic demand. He also highlighted the GCC's Security Vision and the importance of emergency preparedness.

The Secretary-General stated that energy supplies from the Gulf countries represent a fundamental pillar of global energy supplies. He explained that at the same time, the Gulf states are pursuing ambitious development plans, which in turn lead to an increase in domestic energy demand.

Al-Budaiwi added that the developing world is witnessing rapid growth and an increasing demand for energy, noting that the Asia-Pacific region is expected to account for 50% of

global GDP by 2040, making it one of the fastest-growing regions in the world.

He pointed out that Africa is also growing at a rapid pace, ranking second after Asia in this regard, with an annual GDP growth rate of around 4%.

He also highlighted that the Gulf countries, as major global energy suppliers, face three main challenges: adapting to the global energy transition, meeting increasing domestic demand, and safeguarding the security and stability of the global energy market.

The Secretary-General explained that the security and safety of energy infrastructure in the Gulf region are essential to the health of the global market. He added that the GCC's regional security vision is built on several objectives, including the establishment of strategic relations and regional and international partnerships to address sources of threat and tension in the region and the world. This includes the GCC states' role in ensuring the security of energy



supplies, stabilizing oil markets, enhancing maritime security, and ensuring freedom of navigation.

He added that aerial attacks have become a prominent and ongoing feature of the competition and instability in the Middle East. These include an arsenal of ballistic missiles, cruise missiles, and drones, now alarmingly accessible not only to states but also to certain non-state actors.

Al-Budaiwi noted that the GCC's regional security vision calls for intensified cooperation with regional and international partners to prevent non-state actors from acquiring weapons, ammunition, ballistic missile technology, and drone systems. It also calls for strengthening regional and international legal mechanisms and holding accountable those who violate relevant UN resolutions.

He emphasized that this vision recognizes the close interconnection between the global importance of the GCC states' vital resources and the need to adopt effective and flexible measures to counter terrorist threats. He explained that the ongoing developments and conflicts in the region suggest that any conflict in the Middle East could directly affect three of the world's seven strategic sea routes: the Strait of Hormuz, Bab Al-Mandab, and the Suez Canal.

Al-Budaiwi concluded his speech by stating that current conflicts not only threaten global supply chains but also impact national and cross-border development projects, such as the connectivity initiatives between the European Union and the Middle East, which rely on safe passage through the Levant and the Mediterranean, as well as energy development projects in the Eastern Mediterranean.

UN Counter-Terrorism Official on the Threat of Disruption

In a similar address, UN Under-Secretary-General for Counter-Terrorism Vladimir Voronkov, thanked the Government of Kuwait and KOC for their continuous cooperation with the UN. He noted the growing complexity of global threats and stressed the international responsibility to intensify efforts to protect vital energy infrastructure by establishing actionable frameworks and maintaining clear priorities, such as securing the oil and gas sector from terrorism and upholding overall security commitments.

He warned of the serious risks posed by terrorist groups targeting energy infrastructure, which could disrupt healthcare, transport, water supply, and food security, creating widespread instability.

Voronkov highlighted the recent UN Security Council Resolution 2341, which calls for criminalizing attacks on critical infrastructure and urges member states to counter threats proactively. He also referenced General Assembly Resolution 77298, condemning terrorism against energy facilities and encouraging international cooperation.

He noted the launch of a technical guide developed with support from Russia and Turkmenistan, aimed at protecting critical energy infrastructure from terrorist attacks, based on extensive UN research and consultations.

UN Resident Coordinator's Perspective

In her speech, Dr. Ghada Al-Taher, UN Resident Coordinator in Kuwait expressed gratitude to all partners, affirming that the GCC is a cornerstone of global energy security. She elaborated on the various impacts of terrorism, including economic disruption, environmental disasters, and civilian harm, emphasizing the need for effective responses to emerging threats and a commitment to maintaining regional and international stability. She also reaffirmed the UN's commitment



to advancing security goals and delivering actionable results.

Dr. Al-Taher emphasized that the meeting offers a vital platform for exchanging best practices and operational experiences. She acknowledged the GCC's historic role in global energy security and Sustainable Development, noting the region's vast oil and gas reserves.

She also warned of unprecedented challenges from terrorists seeking to exploit vulnerabilities in energy networks, underscoring the need for integrated and accelerated efforts to counter evolving threats. She stressed that protecting energy infrastructure is not only about physical security but also about safeguarding global economic stability, human security, and the natural environment.

GCC Emergency Management Center's Role

Chairman of the GCC Emergency Management Center (EMC) Dr. Rashid Al-Marri described the meeting as an important opportunity for knowledge sharing and cooperation to protect vital

oil and gas infrastructure. He highlighted that energy facilities are not just production sites, but key economic pillars and strategic security tools.

Brigadier General Dr. Al-Marri encouraged all attendees to use this opportunity to exchange expertise on infrastructure protection and crisis management, aiming for the best outcomes in regional and international security. He expressed deep appreciation to KOC's leadership for their knowledge-sharing and swift decision-making to prevent incidents.

Dr. Al-Marri stressed the importance of heightened preparedness and joint efforts against direct threats such as terrorism and cyberattacks, as well as indirect risks stemming from geopolitical tensions. He outlined the EMC's role as a coordinator of collective regional responses and its success in developing a comprehensive emergency plan covering 13 risk types, including energy security.

He emphasized the EMC's collaboration with the UN Office of Counter-Terrorism to enhance regional capabilities through technical guides, workshops, and joint training.

Russian Ambassador on Global Cooperation

For his part, the Russian Ambassador to the State of Kuwait Vladimir Zeltov stated that oil facilities could be attractive targets for terrorists for various reasons, posing a serious threat to global energy security. He called for a global response through practical, targeted cooperation to jointly protect energy infrastructure from terrorist threats, and thanked KOC for hosting the important meeting.

KOC's Commitment and Strategic Importance

KOC'S DCEO (Commercial & Corporate Services) Musaed Al-Rasheed expressed KOC's pride in hosting the event at such a critical time, and collaborating with the GCC Secretariat and UN Counter-Terrorism Office. He reaffirmed the Company's commitment to sharing its extensive institutional experience since 1934, highlighting its comprehensive emergency and crisis management systems.



He stated that the region is a vital source of global energy and that Gulf energy assets play a central role in maintaining global energy market stability. Al-Rasheed stressed the importance of strengthening regional and international partnerships to ensure maritime security and uninterrupted energy supplies under all circumstances, and thanked the UN and GCC EMC for their collaboration. Al-Rasheed highlighted KOC's contribution to the meeting, drawing on the Company's extensive experience gained through years of overcoming challenges.

He pointed out that emergency response at oil facilities now addresses a broad range of risks, including geopolitical, security, industrial, natural, and marketrelated challenges, especially amid unprecedented regional developments.

Al-Rasheed highlighted GCC's pivotal role in global energy supply, citing a recent statistical report showing that GCC countries produced around 17 million barrels of crude oil daily in 2023, accounting for 23.2% of global production. The report also revealed that GCC crude oil reserves stood at approximately 511.9 billion barrels (32.6% of the world's total), while the region held 21.4% of global natural gas reserves and exported 180.9 billion cubic meters of gas in 2023 (13.1% of global exports).

These figures underscore the critical importance of safeguarding GCC energy assets to maintain global market stability.



Leadership Engagement

KOC CEO Ahmad Jaber Al-Eidan received Chairman of the GCC Emergency Management Center (EMC), Brigadier General Dr. Rashed Al-Marri, and Head of the United Nations Office of Counter-Terrorism (UNOCT) in Madrid, Ignacio Ibáñez, along with their accompanying delegations.

During the reception held at the Company's headquarters, in the presence of DCEO Commercial & Corporate Services Musaed Al-Rasheed, Dr. Al-Marri expressed his appreciation to KOC for hosting the high-level GCC meeting on Oil & Gas Infrastructure Protection and Crisis Management, and for its effective contributions to the discussions and technical workshops held as part of the event.

For his part, Al-Eidan expressed his satisfaction with the Company's role in the success of the Gulf meeting, reaffirming KOC's commitment to supporting all GCC efforts aimed at enhancing energy security and protecting oil and gas infrastructure.

Al-Buhairi: Gulf Oil Companies Boost the Efficiency and Readiness of Their Capabilities and Human Resources

In a statement to journalists ticipation as a representative of the State of Kuwait in a GCC meeting, KOC's HSE Group Manager Nasser Al-Buhairi emphasized the necessity of security preparedtypes of risks in the oil and gas sector, in order to maintain the stability of this vital industry.

Al-Buhairi stated that Gulf oil companies are working to enhance the efficiency and readiness of their capabilities and human resources

and the unified preparedness efforts of the GCC countries, during which all existing plans will be reviewed and developed through the exchange of exper-

shop reflects the importance of the oil and gas industry in the surrounding it in light of curdraw a number of important strengthen scientific and practical expertise in the Gulf oil secto global markets regarding the availability of secure energy

Al-Buhairi explained that the

GCC Emergency Management Center serves as a key pillar of the Gulf cooperation framework, whether in transferring expertise or unifying joint efforts in the face of potential threats. He noted that Kuwait is working to KOC is rich with specialized national talent.

Al-Buhairi concluded his statement by affirming that the development of this through identifying needs, implementing plans, and transferring expertise to the national workforce.



KOC Participates in the European Association of Geoscientists and Engineers (EAGE 2025) Conference

The prestigious position that the KOC has reached in the global oil and gas industry has earned it a consistent presence at prominent international events.





In this context, we highlight the Company's third high-level participation since the beginning of this year. The Company participated in both the Offshore Technology Conference (OTC) held in Houston, USA, and the Oman Petroleum & Energy Show (OPES 2025) hosted in the capital, Muscat, all within a time span of less than a month.

This is an impressive achievement, considering the brief interval of just about a month between each event. It's rare for a company to take part in three large-scale events within a span of less than three months, given the preparation, documentation, logistical arrangements, and technical presentations such participations require.

Nevertheless, KOC rose to the challenge and was successfully represented by a distinguished delegation, further strengthening its image and reputation on the global stage.

The Event and Delegation

In this article, the Kuwaiti Digest covers KOC's participation in the 86th Annual EAGE Conference and Exhibition (EAGE 2025), hosted in Toulouse, France, over four days.

KOC's delegation included:

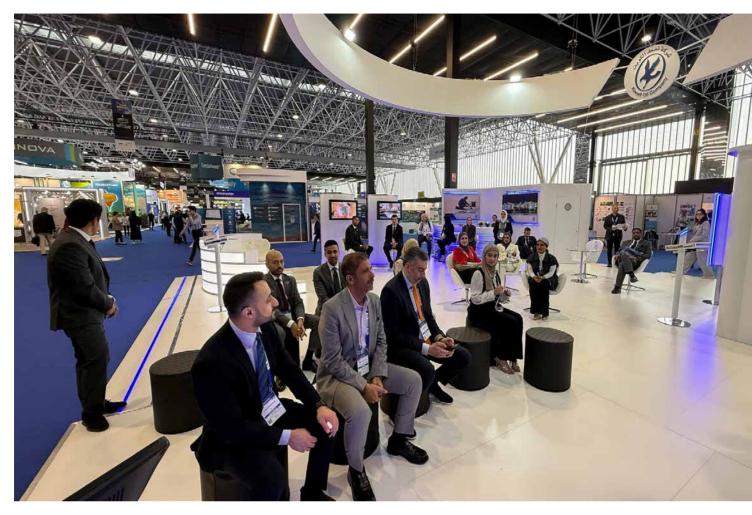
- Deputy CEO for Planning & Innovation, Mohammad Al-Abduljaleel
- Deputy CEO for Projects Management & Engineering, Fahad Al-Kharqawi

Along with several Group Managers, Team Leaders, and specialists from relevant departments.

This year's conference was themed: "Navigating Change: Geosciences Shaping a Sustainable Transition", reflecting the critical role of geosciences in supporting the global Energy Transition and building a resilient, sustainable future.

Kuwait Petroleum Corporation and its subsidiaries were among the event's sponsors. The conference aimed to evaluate progress made toward the Net-Zero Carbon goal and explore technological advancements that could accelerate the transition.

KOC presented its latest innovations in geosciences, exploration, and energy transition through several technical papers and presentations, reaffirming its commitment to scientific advancements and sustainable energy production.



Active Participation

KOC played an active role throughout the conference, with its technical and engineering Teams delivering presentations on:

- Best practices in geological exploration within Kuwait's unique environment
- Ongoing projects to boost production efficiency and reduce carbon emissions

Executives Al-Abduljaleel and Al-Kharqawi, alongside other specialists, joined sessions focused on geosciences, digital transformation, and sustainability. KOC engineers and geoscientists also participated in specialized workshops related to sustainability, seismic data analysis, and exchanging experiences with global firms.

The Company also set up its own booth at the accompanying exhibition, alongside more than 200 other exhibitors, where it showcased its latest activities, the many projects it has undertaken, gained experiences, and the state-of-the-art technology it utilizes.

Conference Theme and Key Focus Areas

The conference centered on three main topics:

- The Role of Geosciences in Energy Transition
 Focusing on geothermal energy and carbon storage.
- 2. Technological Innovation Including AI-driven subsurface analysis, soil characterization, and predictive modeling.

3. Global Collaboration

Encouraging partnerships between companies and research institutions to address environmental and climate challenges.

Toulouse: Europe's Aerospace Capital

The choice of Toulouse as the host city added depth to the event, thanks to its status as Europe's aerospace hub, which supported exploration of the connections between geology, AI, and space data in resource discovery. The conference is held annually in June, where the 2025 edition took place from June 2 to 5, followed by the next from June 8 to 11. In previous years, the event was hosted in Oslo in 2024, and it is set to take place in Aberdeen, Scotland, in 2026.

KOC's Presentations and Technical Papers

KOC submitted one main corporate presentation and four technical papers, as follows:

Seismic Reservoir Characterization of carbonates and shales

- Seismic Fracture Characterization of Unconventional Najmah Reservoir using Prestack Azimuthal Inversion: A Case Study in Kuwait Lulwa Al Saleh (Geologist I Geological & Geophysical Solution Team)
- Seismic Reservoir Characterization of Wara Formation by Prestack Simultaneous Inversion Using Low Frequency Model with Faults Taiwen Chen (TPL Specialist I (Geophysics) Geological & Geophysical Solution Team)

2. Clastics Reservoirs

Optimizing Field Development of a Secondary Reservoir in a Mature Super Giant Field - Reham Al-Houti (TPL Specialist I (Geology) Gt. Burgan Studies Team I)

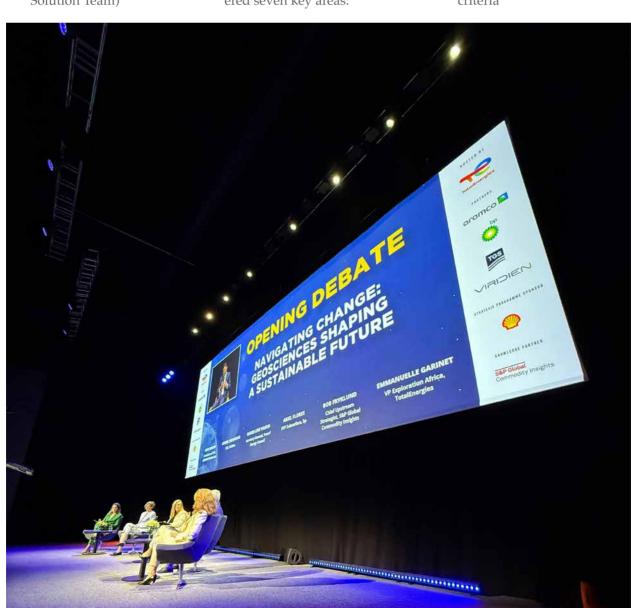
3. Geo-mechanics & Pore Pressure - 1

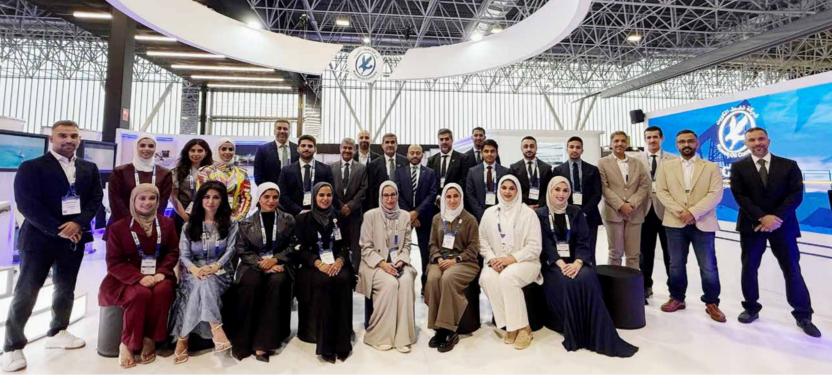
Efficient Well Delivery through Geomechanics and its Impact on Reservoir Characterization and Field Development A - Omran Al-Zankawi (TPL Specialist (Geoscience) • Greater Burgan Studies Team)

Corporate Overview Presentation

This general presentation, now a standard feature in KOC's international appearances, covered seven key areas:

- 1. Planning
- Structure of Kuwait's Oil Sector
- KOC's Journey of Growth & Development since its establishment in 1934
- Vision and 2040 Strategy
- Kuwait's Roadmap to Net-Zero by 2050
- 2. Contracts
- Prepared by Contracts & Commercial Support Group
- Explained tendering procedures, Group structure, bidding laws and rules
- 3. Supplier Relations
- Overview of KOC's Supplier Relationship Management Team
- Registration process, qualification stages, and evaluation criteria





- 4. Innovation & Technology
- Led by the Innovation & Technology Group
- Discussed cooperation with IT, suggestion system, and emerging technologies
- 5. Exploration
- Title: "KOC's Exploration Journey: History, Achievements, and Future Strategy"
- Covered milestones, Group structure, Jurassic & Marine prospects, and challenges
- Drilling Engineering & Workover
- Drilling as the "heart" of KOC
- Covered onshore/offshore well delivery, fluids lab, Real-Time Drilling Decision Centre (RTDDC)
- 7. Energy Transition
- Led by the Production & Projects (Gas) Group
- Covered KPC 2050 Energy Transition Strategy, Initiatives for Achieving Net Zero Carbon by 2050, Renewable Energy, CCUS, Energy Efficiency & Zero Routine Flaring, Carbon Offsetting, and The Green Jurassic Gas Facility (JPF-SA GREEN Facility)

Importance of the Conference

The EAGE Annual Conference & Exhibition is Europe's largest multidisciplinary geosciences event and one of the oldest in the world, first launched in 1951 in Scheveningen, Netherlands. Attended by around 6,000 professionals each year, it features technical sessions, field trips, short courses, and a major

exhibition. The 2025 edition, hosted by TotalEnergies, welcomed over 5,800 participants from 85 countries, representing 645 organizations. The program included more than 1,250 papers and talks, 50 strategic keynote speakers, and over 200 exhibitors, including KOC.

About EAGE

The European Association of Geoscientists and Engineers (EAGE), founded in 1951 with the motto "Where Geoscience and Engineering Meet," initially focused on geophysicists but expanded its scope in the 1980s and 1990s to include the European Association of Petroleum Geologists (EAPG) and the European Association of Exploration Geophysicists (EAEG).

Today, EAGE encompasses a wide range of disciplines, including geophysics, petroleum geology, reservoir engineering, mining, civil engineering, digital transformation, and en-

ergy transition. Headquartered in the Netherlands, the association also operates regional offices in Dubai, Kuala Lumpur, and Bogotá.

EAGE is known for organizing an annual conference and exhibition, along with specialized workshops and events that address key topics such as deepwater exploration, carbon capture and storage (CCUS), hydrogen, geothermal energy, seismic imaging, women in geosciences, and youth engagement and professional development.

KOC Hosts "Less Becomes More When You Save" Conservation Event

Under the patronage and with the attendance of the Governor of Ahmadi, and in cooperation with the Ministry of Electricity, Water & Renewable Energy





When it comes to conservation, the slogan "Less Becomes More When You Save" embodies a strategic, forward-thinking, and sustainable approach. Saving resources ultimately leads to greater availability over time, especially in the case of energy, which is the primary focus of this article.

Most importantly, KOC consistently leads the way in pursuing practical solutions, whether as a host, participant, or key influential entity.

Given the critical importance of energy conservation today, particularly in Kuwait, raising awareness and exploring effective ways to reduce consumption is essential. This was the core objective of the "Less Becomes More When You Save" event, which brought together prominent stakeholders in the field.

Patronage and Hosting

Under the patronage and with the attendance of His Excellency the Governor of Ahmadi, Sheikh Humoud Al-Jaber Al-Ahmad Al-Sabah, KOC hosted the "Less Becomes More When You Save" event. The event was organized by Ahmadi Governorate in cooperation with KOC and the Ministry of Electricity, Water and Renewable Energy (MEWR), aiming to raise awareness on the importance of energy conservation.

The event took place at the KOC Tent in Ahmadi, in the presence of Undersecretary of MEWR Dr. Adel Al-Zamel, KOC Deputy CEO (Planning & Innovation) Mohammad Al-Abduljaleel, Ag. Manager Public Relations & Information Group Bedour Al-Sayed Omar, along with many KOC officials, employees of sister companies, and government representatives.

The seminar opened with a speech by His Excellency the Governor, who welcomed the attendees and highlighted the great significance of the cause at hand: conserving electricity and water and finding sustainable energy alternatives. The Gover-

nor also emphasized that Kuwait is making significant progress in the environmental, economic, and social sectors—an essential responsibility for the benefit of future generations—especially given that Kuwait's per capita electricity consumption ranks among the highest in the world.

MEWR's Contribution

Undersecretary of MEWR Dr. Adel Al-Zamel's speech followed, in which he thanked the Governor for his generous patronage and ongoing support, and KOC for hosting the event, confirming that this is part of the ongoing cooperation between the three sides.

He highlighted that this event comes at a critical time in terms of climate change and a rising demand for electricity and water, and that turning to renewable energy is essential for future generations. He also expressed his sincere appreciation for the Kuwaiti youth working at the Ministry for their roles in securing Kuwait's energy needs, conclud-

ing by stressing that energy conservation is a shared responsibility, and hoping for a productive discussion that would contribute to a more sustainable future.

Several awareness videos prepared by the Ministry on electricity and water conservation and their importance for Kuwait's future and resource sustainability were then screened.

Achieving Sustainability

For her part, Dr. Khadija Abdulredha Mishari, Head of the Information & Awareness Team for Conservation at the MEWR, presented a session titled "Saving to Achieve Sustainability". She reviewed scientific and practical solutions to energy consumption.

Dr. Khadija Mishari explained that these solutions include sustainable buildings, energy efficiency, lighting alternatives, energy-saving appliances, preventing water waste, and cost savings. She also stressed that energy conservation is not just the Ministry's voice but that of the entire state, considering MEWR's joint presence with KOC here as strong evidence of this.

The Future of Renewable Energy

The session was followed by a panel discussion titled "The Future of Renewable Energy and How it Will Affect the Quality of Life", in which TL Drilling & Workover Technical Services (VI) at KOC Ghazi Al-Besairi, and Engineer Sulaiman Al-Khaldi from the MEWR participated, presenting the Sidrah 500 Project and the Shagaya Project, respectively.

They discussed two major projects in this direction: the "Sidrah 500" project implemented by KOC at the Umm Gudair field in West Kuwait, focusing on solar energy use to generate electricity; and the "Shagaya" project, a collaboration between the oil sector, the Kuwait Institute for Scientific Research (KISR), and other government entities. The Shagaya project will be the largest renewable energy project in Kuwait.

Governor's Address

Returning to His Excellency the Governor, he began his opening remarks by expressing his happiness to participate in this important panel discussing two vital topics with major social, economic, and environmental implications: renewable energy, and its related questions on necessity, cost, challenges, and integration with traditional energy sources; and the extent to which renewable energy can improve people's quality of life.

Sheikh Humoud Al-Jaber Al-Ahmad Al-Sabah noted that renew-

able energy studies promise a future with significant improvements in quality of life, through cleaner environments with less air and water pollution, positively impacting public health by reducing the incidence of disease.

He highlighted experts' views that renewable energy also contributes to reducing global warming and climate change, and offers economic benefits through job creation and potentially lowering energy bills. It also helps develop remote areas lacking traditional electricity networks.

However, specialists acknowledge challenges related to renewable energy, such as storage costs and overcoming supply interruptions, leading to an important question: can renewable energy fully replace fossil fuels in the future, or will they complement each other to jointly support growth and development worldwide?

Well-Studied Plans

His Excellency the Governor emphasized that Kuwait, under the wise leadership of His Highness the Amir Sheikh Mishal Al-Ahmad Al-Jaber Al-Sabah, is committed to sustainable development and supporting regional and international efforts to tran-

sition to more efficient and sustainable energy systems.

He affirmed that Kuwait has well-studied plans and ambitious projects aligned with international commitments and Sustainable Development Goals, and is diversifying its national energy mix consistent with the "New Kuwait 2035" Vision.

He also praised KOC's national role in implementing the State's Energy Transition Strategy.



Latest Company Efforts

KOC is a leading institution when it comes to supporting energy conservation and significantly contributing to embedding this culture within society, starting with its own employees.

In fact, KOC has long been a pioneer in this field, organizing numerous awareness campaigns over the years, implementing energy-saving measures across its facilities, installing energy-efficient lighting systems, and supporting renewable energy systems in various locations.

One recent initiative was the Water Conservation event held earlier this year under the patronage of Deputy CEO (Gas & Environment) Ameena Rajab and then-Deputy CEO (Admin & Finance) Qusai Al-Amer, organized by the HSE Group, represented by the Environmental & Social Compliance Team, in collaboration with the Finance Group.

The event was attended by several Group Managers and Team Leaders, including then-Manager HSE Group Faisal Mirza, Manager Finance Group Aisha Al-Sulaili, and TL Employee Accounts Mohammed Al-Ajmi. Representatives from sister oil companies, the Environment Public Authority, Kuwait University, KISR, the Ministry of Electricity, Water and Renewable Energy, and Kuwait Water Association were also in attendance.

The event aimed to highlight KOC's ongoing efforts to conserve water and raise awareness

about the importance of rational water consumption at KOC and across Kuwait.

At the opening of the event, the Finance Group Manager delivered a welcoming speech, during which she touched on KOC's initiatives to rationalize water consumption. These efforts reflect the Company's commitment to the environment and society, through various initiatives aimed at preserving water.

The event featured several presentations highlighting KOC's management and efforts in preserving and rationalizing various water resources, including major ongoing projects that contribute to water conservation. Representatives from multiple participating entities delivered awareness lectures on the best methods for water provision and sustainability, showcasing key technologies being deployed both locally and globally. These sessions emphasized not only the importance of advanced water-saving technologies but also the crucial role individuals play in preserving this vital natural resource. The presentations were complemented by video segments that further illustrated KOC's water management initiatives and ongoing projects aimed at protecting water wealth.

At the conclusion of the event, KOC honored the lecturers and supervisors of the program.





Summer Campaign

With the start of this summer, the Ministry of Electricity, Water and Renewable Energy launched the national conservation campaign titled "Save More," through an event at the Center for Government Communication, attended by Undersecretary Dr. Adel Al-Zamel, Ministry leaders, and various media representatives.

The Ministry presented the campaign's goals, vision, and strategy for the current summer, alongside upcoming activities at various venues including shopping centers to raise awareness among the wider public about the importance of saving electricity and water.

Dr. Al-Zamel, also Chairman of the Electricity & Water Conservation Committee, stated that the campaign aims to strengthen community awareness of optimal energy consumption culture.

He added that the campaign is part of a focused national approach placing resource sustainability at its core, supported by broad government backing, reflected in official entities adopting the campaign's goals and providing the means to ensure its success.

He stressed the significant rise in electricity and water consumption rates in Kuwait and the resulting environmental and economic burdens, calling on all sectors—government, institutions, and individuals—to rethink consumption patterns, actively reduce waste, and optimize resource use.

Dr. Al-Zamel highlighted that the campaign's importance lies in engaging all community segments in this national social responsibility, describing it as a call to adopt a new culture valuing conservation, moderation, and community cooperation as key to sustaining resources.

He noted that individual energy consumption in Kuwait is high compared to other countries, necessitating intensified media efforts about proper water use, expecting campaign success through citizens' and residents' united efforts.

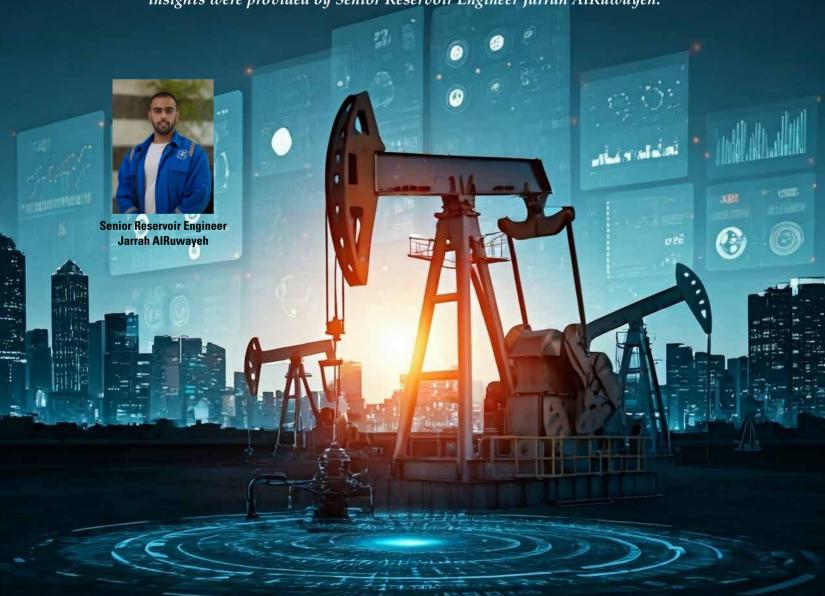
He also praised government institutions for their national awareness in reducing energy use in their buildings to address energy demand challenges.

Meanwhile, Head of the Ministry's Information Awareness Team Dr. Khadija Mishari, and Deputy Head Mohammed Al-Hattab presented a visual overview of the media campaign aimed at encouraging positive energy usage behaviors. They emphasized that the campaign aims to highlight the environmental and economic benefits of conservation, engage both the public and private sectors in related initiatives, and promote a culture of responsible consumption alongside effective saving solutions.

PIS: Revolutionizing Oilfield Operations Through Integrated Digital Intelligence

Overview – A Landmark in Oil Production Digitalization

In a transformative leap for the energy industry, Kuwait Oil Company has successfully developed and deployed the Production Integration Solution (PIS)—the first fully integrated production optimization system of its kind, which was developed fully in-house within the PI Group under the directives of Manager Abdulaziz Najaf. This pioneering digital initiative consolidates complex, fragmented operations across the production lifecycle into a unified, intelligent ecosystem. PIS represents a breakthrough in how data, operations, and decision-making are integrated, enabling real-time visibility, smarter planning, better accountability, and operational excellence at scale. In this article, the Kuwaiti Digest dissects this remarkable, pioneering initiative, which has been submitted to the KOGS and nominated for several international awards. All insights were provided by Senior Reservoir Engineer Jarrah AlRuwayeh.





Challenges – Fragmentation, Complexity, and Lost Potential

Modern oil production is shaped by countless variables: new well activity, equipment reliability, natural decline, infrastructure constraints, and organizational silos. Historically, over ten legacy systems handled these areas separately, leading to inconsistent data, manual workflows, and delayed responses to production deviations. Without a "single source of truth", the Company lacked the holistic insights needed to proactively manage performance or align with corporate targets.

Solution – A Unified, Intelligent Production Ecosystem

PIS was built to directly address these challenges by unifying structured, unstructured, real-time, and historical data from across Planning, Reservoir Engineering, Drilling, Production, Workover, and Flowline operations. The platform integrates live feeds from wells, completions, artificial lift systems, drilling records, and sensor networks, all connected through robust data validation and quality control mechanisms.

Key Innovations

- End-to-End System Integration: Over 10 legacy systems unified into a centralized platform
- Real-Time Barrel-Level Tracking: Precision monitoring of produced and deferred oil volumes
- Advanced Analytics and ML Algorithms: Automatic calculation of performance gaps, root causes, and forecast deviations
- Dynamic Production Forecasting: Real-time redistribution of production shortfalls across remaining months to maintain year-end target alignment
- Interactive Dashboards & Visualization: Automated insights accessible to all stakeholders, from the well level to corporate leadership.



Expected vs Actual Gain Com Expected vs Actual Gain (Orifling +WO) Documber January Pebruary March April May June My Jan 2005 Mar 2005 May 2005 May 2005 Losses by Month (Actual vs Expected) Losses by Month (Actual vs





Features – Intelligence at Every Level

PIS provides a suite of advanced functionalities designed to empower evidence-based, real-time decisions:

- Production Gap Analysis: Quantifies and categorizes shortfalls between actual and forecasted production.
- Loss Attribution: Dissects gaps into subcategories such as rig deployment delays, extended job durations, shut-in events, or low well productivity.
- Deferred Oil Tracking: Tracks and quantifies losses due to postponed activities, from rig mobilization to facility shutdowns.
- Well Productivity Assurance: Identifies when operational plans were executed but wells underdelivered.
- Inactive Well Recovery: Flags idle wells for reactivation or strategic compromise to optimize field performance.
- Failure Pattern Recognition: Uses historical data to highlight recurring operational issues and recommend targeted interventions.
- Forecast Assumption Validation: Tests whether actual performance aligns with assumptions embedded in corporate forecasts.









Results – Measurable Impact and Strategic Alignment

The impact of PIS has been both wide-ranging and quantifiable, demonstrating clear value across operational and strategic dimensions.

Key Achievements are as follows:

- Production Gap Analysis: Identified a total shortfall of 21,500 BOPD, including:
- 11,500 BOPD from drilling delays
- 10,000 BOPD from workover inefficiencies
- 2. Inactive Well Recovery:
 Flagged 36 inactive wells, including 18 shut for over 90 days, prioritizing them for reactivation to enhance field output.
- 3. 3. Failure Pattern Identification:

Detected 33 wells with repeated operational failures and 125 average days between work-over, initiating detailed root cause analysis to reduce downtime.

Tangible Benefits

- Improved Asset Uptime: Greater availability through proactive intervention
- Deferred Production Recovery: Accelerated reactivation and optimization efforts
- Reduced Manual Effort: Streamlined workflows and minimized redundant tasks
- Cross-Functional Alignment: Teams operate from a single source of truth
- Decision Intelligence: Faster, evidence-based responses enabled by real-time insights
- Strategic Performance Management: Enhanced ability to meet and exceed corporate KPIs

Sustainability and Scalability: Built for the Future

PIS is not a one-off project, it's a scalable and future-ready platform designed to evolve alongside the organization's needs. Its architecture supports:

- Continuous Improvement: Ready for AI, machine learning, and predictive analytics
- Enterprise-Wide Adoption: Flexibility to on-

- board new assets, systems, and business units
- Strong Data Governance: Ensures integrity, transparency, and accountability across functions
- Digital Culture Transformation: Catalyzes a shift toward evidence-based operations and digital-first thinking.

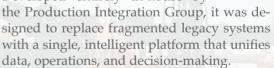
A Model for the Energy Industry

Beyond a technological achievement, PIS represents a new era in energy management. By unifying fragmented systems into a cohesive, intelligent production platform, Kuwait Oil Company has set a new benchmark for digital oilfield operations. The platform's real-time visibility, predictive insights, and scalable design empower teams to close the gap between planning and execution, transforming uncertainty into actionable intelligence.

As a pioneering solution, PIS offers a repeatable model for other oil and gas organizations seeking to harness digital transformation for sustainable, high-performance energy operations.

Statement from Manager Production Integration Group Abdulaziz Najaf

The Production Integration Solution (PIS) is a landmark in the digital transformation of oil production and the first fully integrated optimization system of its kind. Developed entirely in-house by



This innovative model combines creativity, intelligence, and optimization at scale. By integrating real-time feeds from wells, reservoirs, drilling, and artificial lift systems with advanced analytics and machine learning, it delivers real-time visibility, dynamic forecasting, and accountability. The result is smarter planning, faster responses, and stronger alignment with corporate objectives.

More than a digital solution, the Production Integration Solution reflects the power of inhouse initiative and vision. It demonstrates technical excellence, creativity, and strategic thinking, setting new standards for how Kuwait Oil Company harnesses innovation to drive operational excellence in the oil industry.



Sabriyah Field Records New Milestone in Heavy Oil Production

The Sabriyah wells are ready to support another milestone in heavy oil production, targeting 100,000 barrels per day for the first time in the history of the State of Kuwait.



Building on the remarkable success of North Kuwait's heavy oil production—reaching 90 MBOPD for the first time in the nation's history—the Heavy Oil Team is setting its sights on an even more ambitious goal: achieving 100 MBOPD. This target not only represents a national breakthrough, but positions Kuwait as a regional leader in heavy oil development.

With steam availability at the South Ratqa Central Processing Facility remaining limited and Umm Niqa Phase-I already contributing to current output, Manager Field Development (NK) Group Saad Matar visited the Sabriyah field to explore every viable opportunity to close the production gap and encouraged all Field Development Teams to think outside the box.

Following a comprehensive evaluation, attention was turned to the suspended wells in the Sabriyah field—an untapped resource with promising potential. Reviving these wells could be the key to unlocking the next major milestone in Kuwait's heavy oil journey.



Figure (1): FD Manager and TL NFD/BA field visit

Between 2017 and 2019, exploration activities in the Sabriyah field led to the discovery of heavy oil reserves in the Lower Fars formation, located in North Kuwait. As illustrated in Figure 2, the current area of focus within the field saw the drilling of 24 exploratory wells, with 21 of them delivering promising initial results. Despite this early success, progress was stalled due to the lack of technically compliant wellheads, preventing the wells from being completed and brought online.

A renewed push came after a comprehensive field visit and detailed review of the wells. In response, Manager Field Development (North Kuwait) issued a directive to accelerate the replacement of the existing wellheads using compatible units available in KOC's inventory.

This initiative was undertaken with strong technical backing, including thorough quality assurance and risk assessments carried out by the Heavy Oil Team. Their expertise guided a low-risk, practical approach to safely bring the wells into service.

As a result, all 21 wells were incorporated into the workover rig schedule. Within just four months, maintenance operations were successfully completed, and the wells were fully equipped and ready for production, marking a significant milestone in unlocking the potential of Sabriyah's heavy oil reserves.

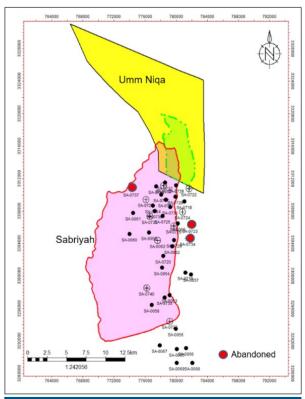


Figure (2): Sabriyah Heavy Oil Footprint

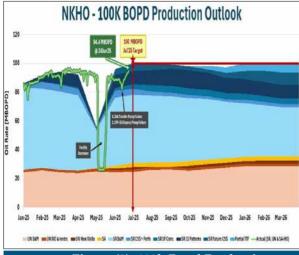


Figure (3): 100k Bopd Production Profile

Leveraging the surplus processing capacity at the EPF-120 facility, the Team acted swiftly to fast-track production from the Sabriyah Heavy Oil Field. By utilizing the existing infrastructure, 21 wells were successfully integrated into the system, thus significantly advancing the timeline for bringing this valuable resource online.

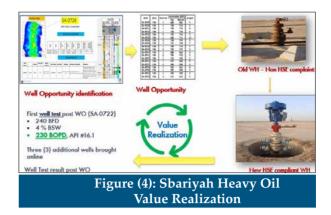
In line with Kuwait's strategic vision to expand heavy oil production, a dedicated, multidisciplinary task force was assembled. Their mission: to evaluate, rehabilitate, and fully connect these wells by **July 2025**.

These wells are now positioned as essential contributors to Kuwait's national goal of reaching 100,000 barrels of heavy oil per day. (Figure 3)

Figure 4 illustrates the structured value realization process, which is built around five critical phases:

- A comprehensive review of the current well inventory
- Opportunity mapping to identify the full production potential of each well
- A detailed action plan to upgrade non-HSEcompliant wells in accordance with KOC's HSE standards
- Coordination of logistics and materials to meet wellhead specification requirements
- Integration and tie-in of the wells to nearby heavy oil facilities

This proactive and agile approach highlights KOC's commitment to innovation, operational excellence, and the sustainable development of Kuwait's energy resources.



Manager Operations Group (NK) Ali Hussain Qasem supported the Sabriyah heavy oil well hook up through close follow up to ensure seamless execution of the Sabriyah well activation program. His support in securing the required flowlines and ensuring close oversight of the implementation process was instrumental in maintaining project momentum and operational efficiency.

Collaboration between the Project Management and Well Surveillance Teams further strengthened execution efforts. Their proactive engagement in identifying operational needs, overcoming site challenges, and sustaining workflow continuity across all disciplines was key to keeping the initiative on schedule.

The major field activities successfully executed included:

- Construction of cellars for all 21 wells
- Sourcing and installation of wellheads compliant with KOC's technical standards
- Review and approval of wellhead replacement procedures, including precise cutting and welding operations
- Installation of flowlines and tie-ins to connect the wells to the existing production infrastructure
- Development of detailed workover programs, mapping out each step of the replacement process
- Mobilization of two rigs to fast-track and complete the operations
- Site preparation, including clearance and leveling, to ensure immediate readiness for rig deployment

These coordinated and forward-looking efforts provided a strong foundation for transforming previously suspended wells into fully productive assets. As a result, the project remains firmly aligned with KOC's strategic goal of achieving 100,000 barrels per day of heavy oil production, which solidifies its position as a regional leader in unconventional resource development.



Figure (5): Well Head Replacement

The Sabriyah Heavy Oil Well Reactivation Project continues to advance seamlessly, maintaining exceptional standards of quality, safety, and operational efficiency. Progress on the reactivation and maintenance of **21 suspended** wells has been steady, with **early well tests delivering highly encouraging results**.

Notably, four wells have already been successfully brought online, each exceeding anticipated production rates—marking a significant milestone

in the project's early execution phase. These positive outcomes affirm the project's strategic value and its potential contribution to Kuwait's heavy oil production goals.

The project successfully completed the activation of all 21 wells by August 2025, reinforcing KOC's commitment to operational excellence and energy sustainability.

This progress was made possible thanks to the strong leadership and unwavering support from KOC's Higher Management, coupled with outstanding cross-functional collaboration. The collective efforts of the Field Development Group (North Kuwait), Operations Group (North Kuwait), and the Technical Services Operations Team have played a critical role in overcoming challenges and driving the project forward.

Their shared dedication has not only enabled the revival of dormant assets but also reinforced Kuwait's position as a leader in heavy oil development across the region.







Through an in-depth interview, Al-Rashoud recounted compelling stories from her decades of documenting life in Kuwait, while also reflecting on her fascinating work with institutions like The Scientific Center and Sadu House in their early days of establishment.

Her insights offer a richer understanding of Kuwait's heritage, history, and ongoing development, and we hope they inspire a new generation of passionate Kuwaitis to follow in her footsteps.

Who is Claudia Al-Rashoud?

Claudia Farkas Al Rashoud is a pioneering American-Kuwaiti photojournalist, author, and cultural consultant who became Kuwait's first professional female photojournalist, and also co-founded one of Kuwait's largest animal shelters, and has authored several publications highlighting Kuwaiti heritage and social change.

Books by Claudia Al Rashoud

1. Kuwait: A Personal View (1988)

Co-authored with Keith Wells, originally published as her first standalone work following his departure.

2. Kuwait's Age of Sail: Pearl Divers, Sea Captains, & Shipbuilders Past & Present

An in-depth tribute to Kuwait's maritime traditions, including dhows and pearl diving culture. Excerpts featured in cultural writing and interviews.

3. Kuwait: Before and After the Storm (1992)

A visual and narrative documentary contrasting Kuwait before and after the Gulf War and liberation, with photography and commentary.

4. Kuwait Kaleidoscope (1995) A richly illustrated cultural heritage book capturing everyday life, traditions, and events in Kuwait. First edition published in 1995.

5. Dame Violet Dickson: "Umm Saud's" Fascinating Life in Kuwait from 1929– 1990 (1997)

A biography of Violet Dickson, supported by Dickson family and Shaikha Hussa Al-Sabah, exploring her life and work in Kuwait. Published in 1997

Interview with Claudia Al-Rashoud

 You began your career as Kuwait's first professional female photojournalist at the Arab Times in 1979. What challenges did you face entering a predominantly male profession at that time?

Most people were surprisingly accepting of a young American female photojournalist, even if they were initially caught off guard to meet me. I found them to be kind and helpful, and the

field itself felt much warmer and less cutthroat than journalism back in the U.S.

I began working for the Arab Times remotely when I was still based in California, interviewing Kuwaiti students in America. I was just 22 years old when I came to Kuwait, and in the beginning, the other photographers at work must have thought I was quite helpless; they wanted to develop my films and print my photos for me! But to their surprise, they soon realized I was perfectly capable and knew exactly what I was doing in the darkroom. After that, they accepted me as part of the team.

2. Over the decades, how have you seen the role of photojournalism evolve in Kuwait?

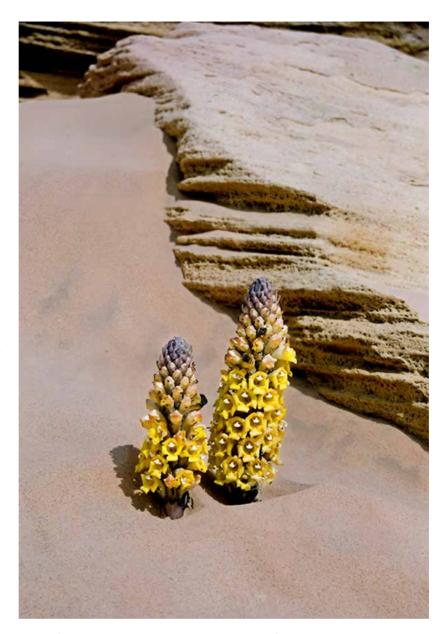
During my early years here, photography wasn't a popular pastime. Technology and attitudes have since changed, and now practically everyone is a photographer. Most people no longer mind being photographed. The audio-visual format has become a vital tool for the media.

My concern is that people often don't verify their sources before reposting information, and this is happening globally. There are too many instant "experts" on social media. There needs to be a stronger emphasis on accuracy in journalism.

That said, I'm encouraged by the number of young Kuwaitis entering the field of photojournalism. I'm happy to see it becoming a more accepted and respected profession.

3. Among the many subjects and moments you've captured, are there any moments or individuals that left a lasting impression on you?

Over the years, I've had the privilege of interviewing many interesting people who passed through Kuwait, including astro-



naut Charles Conrad, Commander of Apollo 12 and one of only twelve men to have walked on the moon. I remember the press conference vividly. This was in the early eighties.

A particularly notable local figure I met when I first arrived in Kuwait was Dame Violet Dickson. Stepping into her home was like stepping back in time — it was full of antiques, family heirlooms, and treasures. I took photographs of the house, and they were later used by the NCCAL to help recreate some of the interiors during a refurbishment of the house.

After the Liberation of Kuwait, I wrote a series of articles that eventually became a book. While researching, I got to know Dame Violet's children. I visited her son Saud in the UK and spent time with her daughter Zahra and granddaughter Penny when they visited Kuwait in the 1990s.

On one of Zahra's visits, we walked through Dickson House together. She shared her child-hood memories of growing up there in the 1930s pre-oil, when Kuwait was a small, walled desert town with no running water or electricity. We went through the house room by room, and



all her memories came flooding back. As a result of that visit, I can now give a very detailed tour of Beit Dickson, which I occasionally do for groups — though the house is currently under renovation.

I've met many people from around the world, but I was especially fascinated by the old Kuwaiti shipbuilders; men like the last great master shipbuilder, Haji Ali Abdul Rasool. I was fortunate to spend time with him while researching my book Kuwait's Age of Sail.

Haji Ali and the other shipbuilders were men of remarkable skill and experience, yet incredibly humble and down to earth. I spent countless hours in Haji Ali's shipyard in Doha, along the northern shores of Kuwait Bay. He built ships the traditional way, using simple hand tools that had served their purpose for centuries.

When he passed away in 1995, Kuwait lost a national treasure. His story, and the stories of other great seafaring men, are told in my book.

4. How has the transition from film to digital photography impacted your work and approach to storytelling?

Analog photography was such a hands-on, tactile process, with special techniques and craftsmanship. Now, once an image is taken, everything happens on the computer. The process of storytelling has undergone a dramatic transformation.

Gone are the days of in-depth feature articles and the big twopage spreads I used to have in Arab Times. I feel sad about that because I really love researching a subject deeply and learning all I can. Unfortunately, many people don't like to read much anymore. However, I've come to embrace new forms of storytelling, like online platforms, which definitely have their advantages. They allow you to share stories with a global audience, connect instantly, and receive immediate feedback. And because you're telling a story with images and limited words, you're forced to get to the heart of the narrative and convey its essence concisely. That can be both challenging and rewarding. But of course, you can't share as much depth or context with your readers. During my career with Arab Times, I had free reign to write about everything that cap-

tured my interest, and in this

way, I interviewed so many inter-

esting people and learned about a wide variety of topics.

5. Your book "Kuwait's Age of Sail" sheds light on the traditional dhow-building craft. What inspired you to focus on this aspect of Kuwaiti heritage?

I was commissioned by Husain Maarafie to write this book. Husain Maarafie is a prominent Kuwaiti businessman and cultural patron, best known for building the world's largest wooden dhow, Al-Hashemi II, and for preserving Kuwait's maritime heritage through his family's business legacy.

Maarafie also built Al-Ghaseer and sailed it back from Malabar, Calicut, India, in 1983.

I met Maarafie in the 1980's. He wanted to document Kuwaiti captains, pearl divers, sailors, and ship builders in this book. Maarafie introduced me to Haji Ali Abdul Rasool, and so much of the sea community in Kuwait.

With a family history of sailing back in the U.S., I was able to connect with this community more easily, and they were happy to have someone who understands their craft and how to sail, which helped me with writing the technical aspects of the book.

I feel so fortunate to have met with these people, who were the last of their generation.

6. Can you share an example of a story or community you felt particularly compelled to highlight?

From a historical and cultural perspective, I've always been drawn to documenting the ship-builders and Bedouin weavers.

I had the privilege of spending a lot of time with women who were last in a long line of weavers. I am happy that people still take up and learn traditional weaving as a hobby, as well as shipbuilding; but it used to be a way of living.

From a social and environmental point of view, protecting animals in Kuwait is a cause close to my heart.

7. With over 5,000 images from the 1980s to early 2000s, how do you approach the process of archiving and preserving these photographs for future generations?

That's a work in progress. I would love to find an institute, company, or organization that

would preserve and digitize my work and make it accessible to scholars, researchers, and historians. I don't want it locked away somewhere with no access to the public.

My archive covers a vast range of subjects, from history, architecture, heritage, and traditions, to the Kuwaiti environment, flora and fauna, people, arts, and general events. I am happy with the easy access to covering these topics in Kuwait as opposed to the U.S. Arab Times was very small when I first started, so I got to cover many key events and topics.

8. Having worked in Kuwait for over four decades, how do you perceive the country's progress in terms of cultural preservation compared to other regions you've encountered?

When I first came to Kuwait in 1979, I discovered a country rich in history, heritage, and tradition — but also undergoing a period of dramatic change.

Sometimes I'd drive to work in the morning, only to find that an entire neighborhood of traditional mudbrick houses had been bulldozed by the time I drove home. The destruction of old Kuwait was often swift and brutal.

It's a shame we lost so much of Kuwait's tangible history during the early years of modernization. But in recent years, there have been encouraging efforts to preserve historic buildings and place more emphasis on research and cultural heritage.

There are some young Kuwaitis doing remarkable work in this field, and showing more interest in their history.

In archaeology especially, tremendous strides have been made, combining traditional fieldwork with cutting-edge technology.

I was fortunate to report on Kuwait's first Neolithic excavations at the Subiya site known as H3, from 1998 to 2004. Some truly exceptional finds were uncovered, including the world's oldest remnants of boats, dating back 7,000 years, and the world's oldest drilled pearl, dated to 5,000 BC.

So much progress has been made since then, and things are looking much more promising now.

9. Can you tell us a little bit about your work with the Scientific Center and Sadu House?

I've served as an ethnographic consultant, photographer, and



acquirer of artifacts — a kind of paid treasure hunter.

I was hired by PICO – Hong Kong, which specializes in creating museum exhibits. They first requested photographs, but were impressed by my discernment of Kuwaiti artifacts, so they hired me as an ethnographic consultant, sending me a list of artifacts they needed to acquire. This ranged from oysters, to Bedouin cooking and coffeemaking utensils, to fishing apparatus, to rock and core samples, which I actually acquired from KOC. I also managed to find a pearl diver's basket.

There were many antique dealers in Kuwait in the late nineties. I also referred to the Dickson records for my assistance. Some artifacts, such as old traditional coffee pots, were sourced from a Kuwaiti home in Sulaibikhat, which couldn't be found anywhere else, and others from the Friday Market. I was also able to gain insights from the residents of that home, who told stories of Kuwait in the 1950's.

The core samples KOC shared were very helpful. We took a tour on the fields to a huge quarry in the desert, where we were warmly received by an elderly Kuwaiti man who worked there, and engaged in an insightful geological discussion. The man was very generous with the rock samples, which mostly consisted of limestone, and I got to select the most beautiful samples.

Some of my photographs and curations still exist in the Scientific Center today.

I also wrote articles for Scientific Center's opening, and joined them when they were collecting fish in the "Hathra" (fish trap) for the aquarium, and took photos of them as well.

In addition, for Sadu House, I had the pleasure of meeting with the last two Sadu masters in Kuwait, Um Turki and Um Nasser. These women told me about the symbols in their weavings, and I got to learn about this rich cultural tradition firsthand.

I also got to work with them to source natural dyes, such as turmeric, hibiscus, and saffron, for an exhibit, in both whole and powder form. In modern times, chemical dyes are predominantly used.

10. Are there any upcoming projects or initiatives you're particularly excited about?

I'm excited to be using my photojournalism skills to help expand the education program for the non-profit Kuwait Society for Animal Welfare (KSAW), of which I was a founding board member.

I also try to illustrate the positive, often healing bond between people and animals — especially children.

I am very excited about my upcoming project, which is writing a story about the relationship between a little boy and his cat, based on a true story. I am writing this book in collaboration with a very talented young local artist, Sarah Al-Gendi. We share the same vision, and I'm convinced we're going to create something magical.

Children who spend meaningful time with animals learn responsibility, empathy, compassion, and respect for all living beings. They also experience less stress, loneliness, and anxiety.

In my photographs, you can feel the tenderness and special connection between children and animals.

11. Advice for Aspiring Journalists: What advice would you offer to young journalists and

photographers, especially in Kuwait, aspiring to make a mark in the field?

Be creative and have fun — but be accurate, honest, and true to yourself. If you love what you do, it'll never seem like work.

You have a powerful tool that can be used to empower both yourself and others. Use it responsibly.

The world today needs ethical voices more than ever.



Kuwait Towers Join ALECSO Arab Heritage List: A Landmark of Modern Arab Architecture

In a significant recognition of architectural and cultural value, the Kuwait Towers were recently added to the Arab Heritage List for Modern Architecture by the Arab League Educational, Cultural and Scientific Organization (ALECSO). This honor places Kuwait's iconic waterfront landmark among the Arab world's most distinguished modern structures, highlighting its symbolic and functional contribution to national identity, design innovation, and regional heritage.





Nomination & Recognition: What Made the Kuwait Towers Unique?

The nomination was led by Kuwait's National Council for Culture, Arts and Letters (NCCAL), with collaborative work from its Restoration and Preservation Department, under the supervision of Secretary-General Dr. Mohammad Al-Jassar, and professionals including Engineer Mahmoud Al-Rubai and Dalal Al-Nomas. The proposal was evaluated and endorsed by ALECSO's Arab Architectural and Urban Heritage Observatory, which selected the Kuwait Towers as one of only two modern Arab architectural icons accepted into the 2025 heritage list.

What distinguished the Kuwait Towers was their unique fusion of engineering utility and cultural symbolism. Though initially constructed as functional water towers, their expressive form and architectural elegance transformed them into national emblems, appearing on currency, tourism campaigns, and postcards since the 1970s. The observatory praised the towers as "not just infrastructure, but monumental public art", reflecting Kuwait's ambitions during the oil-fueled development era and acting as a bridge between tradition, modernity, and Arab identity.

ALECSO

Arab League Educational, Cultural and Scientific Organization

2. The Kuwait Towers: History, Architecture, and Design

The Kuwait Towers stand prominently on a prime coastal point in Kuwait City, overlooking the Arabian Gulf and the city skyline. Their waterfront location offers expansive views and enhances their visibility, reinforcing their status as a national landmark and a symbol of Kuwait's modern architectural achievements. Comprising three slender towers that rise vividly against the Gulf skyline, they serve both as water reservoirs and public spaces, making them the most recognizable landmark in the country.

Architectural Design and Construction

The towers were designed by Swedish architect Sune Lindström in partnership with Malmö-based Vattenbyggnadsbyrån (VBB) (now Sweco), while construction was carried out by Union-Inžinjering of Belgrade, Yugoslavia (now Serbia). Work began in 1971, and the towers were officially inaugurated on March 1, 1979.

The project was part of Kuwait's broader efforts in the 1970s to modernize its urban infrastructure and promote civic pride in a post-independence context. VBB's design was selected for its avant-garde, space-age aesthetic, characterized by geometric minimalism combined with Islamic symbolism, notably the intersecting spheres echoing traditional Arabian minarets and domes.



Details of the Towers

Each tower serves a distinct function:

- 1. 1. Main Tower (Tallest)
- Height: 187 meters (613.5 feet)
- Structure: Two spheres
- Function: Upper sphere houses a rotating observation deck (completes a full rotation every 30 minutes) and restaurants, a café, and a lounge. The lower sphere serves as a water reservoir.
- Water capacity: 4,500 cubic meters
- 2. Second Tower
- Height: 147 meters (482 feet)
- Function: Purely functional; stores one million gallons of water (approx. 3,000 m³)
- 3. Third Tower (Needle Tower)
- Height: 113 meters (371 feet)
- Function: Houses electrical lighting equipment that illuminates the towers at night

Design Features and Materials

The spherical cladding is made from steel covered in 45,000 enameled steel discs in eight shades of blue, green, and gray, designed to shimmer under sunlight and reflect the sea. The discs form a mosaic pattern reminiscent of Islamic tile work, blending modern aesthetics with regional artistry.

The towers are set in a landscaped plaza with walkways, fountains, and access to the seafront, enhancing their role as a social and cultural space.

Symbolism

The design represents human progress and Kuwaiti aspirations. The main tower's spherical elements suggest a balance between functionality (water storage) and vision (observation/restaurant deck). Together, the towers symbolize Kuwait's modern statehood, self-reliance, and its leap into the future during the oil boom era of the 1970s.

Historical Resilience

The towers were badly damaged during the 1990 Iraqi invasion—75% of their electrical and mechanical systems were destroyed. After liberation, they underwent extensive restoration and were reopened in December 1992.

In 2012-2016, they were closed again for major refurbishments, re-opening to the public in March 2016 with modernized facilities including interactive exhibits, multimedia visitor experiences, and cultural programming.

3. About ALECSO and the Arab Heritage Observatory

The Arab League Educational, Cultural and Scientific Organization (ALECSO), founded in 1970, is a specialized agency under the Arab League. Its mission is to promote cultural identity, enhance education, foster scientific collaboration, and protect heritage throughout the Arab world.

The Arab Architectural and Urban Heritage Observatory

In response to growing threats to cultural heritage, especially from urbanization and conflict, ALEC-SO launched the Arab Architectural and Urban Heritage Observatory in 2016. Its purpose is to:

- Catalogue and evaluate urban and architectural landmarks
- Develop a pan-Arab "Heritage List"
- Promote sustainable preservation and public awareness of Arab architecture, from antiquity to the modern era
- Sites are selected based on criteria such as:
- · Historical and architectural significance
- Symbolic representation of national identity
- Contribution to the Arab world's urban and cultural narrative

Why This Recognition Matters

The inclusion of Kuwait Towers in this prestigious list:

- Reinforces Kuwait's role as a regional pioneer in fusing modern architecture with cultural expression
- Recognizes the historical resilience and technological sophistication of the towers
- Encourages other Arab states to nominate modern-era landmarks, promoting a more comprehensive narrative of Arab architectural history

The Kuwait Towers, once merely functional elements of a new nation's water infrastructure, have become an architectural icon—celebrated for their artistic vision, engineering excellence, and deep symbolism. Their recognition by ALECSO affirms their cultural and historic value and places them alongside the great monuments of the Arab world. As Kuwait's most enduring symbol, they continue to captivate residents and visitors alike—shining at the edge of the sea, a beacon of modern Arab heritage.

Reopening of Kuwait National Museum's Planetarium





Reopening Overview

The Kuwait National Museum Planetarium officially reopened to the public in early 2025 after being closed since 2016 as part of a comprehensive renovation of the museum complex.

The planetarium's reopening and technical upgrades were announced in June 2024, noting the updated public show schedule and free admission policy. As of February 2025, the facility has returned to full operational status.

Initially inaugurated in 1986, it was one of the first planetaria in the Gulf region and quickly became a landmark for science education in Kuwait. The facility sustained major damage during the 1990 Iraqi invasion, after which it underwent reconstruction and modernization.

By 2002, it had been rebuilt and re-equipped with a ZEISS STAR-MASTER projector, followed by the installation of a digital full-dome system in 2007. The 2025 reopening marks a return to public programming after nearly a decade of closure and technical upgrades.

Upgraded Technical Features

The planetarium's dome now features nine 4K video projectors, delivering high-resolution visuals across its 15-meter-wide surface. Its infrastructure has been fully modernized, including the addition of an updated computer control system and a high-fidelity surround sound setup, ensuring a more immersive experience for visitors.

At the heart of these enhancements is the ZEISS STARMAS-TER projection system (one of only 19 installations of its kind worldwide), renowned for its brightness, clarity, and realism in rendering astronomical visuals. This upgrade was carried out in 2022 by ZEISS as part of a targeted modernization effort.

- 2002: The rebuilt planetarium dome was equipped with a ZEISS STARMASTER star projector, replacing the earlier SPACEMASTER model. This brought back optical-mechanical star projection following reconstruction after the 1990 invasion.
- 2007: An additional digital full-dome projection system was introduced to enhance visual experiences alongside the optical projector.
- March 2022: ZEISS implemented a major technical overhaul, installing nine 4K digital projectors, modern computers, and audio upgrades. The STARMASTER system remained in place and was integrated with the new digital infrastructure. This was not a separate installation of the STARMASTER, but an upgrade of the overall projection suite.

 Early 2025 Reopening: Marks the first time the planetarium has operated in its fully upgraded form, combining the 2002 STARMASTER, the 2007 digital addition, and the 2022 technical overhaul.

Operating Hours & Shows

Open: Monday to Thursday

Showtimes: 10:00 AM, 11:00 AM, 12:00 PM, 5:30 PM, 6:30 PM

Admission: Free for all visitors

Visitors can choose from five daily shows, with morning and evening slots designed to accommodate school groups, families, and individuals alike. Admission remains free of charge, making the planetarium an accessible cultural destination for both residents and tourists.

Location & Dome Specs

The planetarium is located within the Kuwait National Museum complex on Gulf Road, directly opposite Seef Palace. The structure features a 15-meter-wide horizontal dome, which serves as the projection surface for immersive astronomical displays. As a key component of the museum campus, the planetarium complements nearby attractions such as the Heritage Hall, the Archaeology Wing, and the iconic Al Muhallab Dhow exhibit.

Reviving a Landmark

The planetarium is one of four major buildings within the Kuwait National Museum complex, alongside the Heritage Hall, the Archaeology Wing, and the Maritime Wing featuring the Al Muhallab dhow. Its restoration is part of a broader cultural revival effort that began with the museum's founding in the 1980s and continued through multiple phases following wartime destruction in 1990.

After partial reopening in the 1990s and early 2000s, comprehensive renovation plans conceived in the mid 2010's aimed to bring the museum up to international standards. The planetarium's reopening in 2025 marks a step forward in this ambitious transformation.

A March 2025 article in "Commercial Interior Design" recommended the revitalized museum and planetarium as essential stops for visitors interested in Kuwait's cultural and scientific institutions.

Summary

- Reopened in early 2025 after nearly a decade-long gap (2016–2024).
- Features nine 4K projectors, advanced sound systems, and the ZEISS STARMASTER projector.
- Offers five free public shows Monday through Thursday:



10:00 AM, 11:00 AM, 12:00 PM, 5:30 PM, and 6:30 PM.

- Located in the Kuwait National Museum complex along Gulf Road with a 15-meter dome.
- Part of a broader restoration of the museum that began in the 1980s and continued through post-war reconstruction and modernization.

Visitor Tips

Arrive early to secure a seat (shows may fill quickly).

Combine your visit with the rest of the museum's exhibits: Heritage Hall, Archaeology, and Al Muhallab dhow sections.

Why Visit the Planetarium?

Visiting a planetarium offers a wide range of benefits, both educational and experiential. Here are some of the main advantages:

- 1. Enhanced Understanding of Astronomy
- Visual Learning: Planetariums provide immersive visual representations of the night sky, constellations, planets, and other celestial phenomena that can be hard to grasp from books or lectures alone.
- Simplified Concepts: Complex astronomical ideas like black holes, light-years, or galaxy formation are often explained in engaging and accessible ways.
- 2. Inspiration and Curiosity
- Sparks Interest in Science: Seeing the universe in a dramatic, immersive format can inspire awe and curiosity, especially in children.
- Encourages STEM Learning: Exposure to astronomy can motivate further learning and even careers in science, technology, engineering, or math.
- 3. Cultural and Historical Context

Many planetariums include content about how different cultures

have viewed the night sky, including mythology, navigation, and historical contributions to astronomy.

4. Great for All Ages

Whether you're a student, adult, or senior, the content can usually be appreciated on multiple levels, making it a family-friendly outing

5. Escape from Light Pollution

Even if you live in an area where you can't see many stars at night, which is common in many urban parts of Kuwait, a planetarium gives you a clear, stunning view of the sky without light pollution.

6. Relaxing and Therapeutic

The dome theater environment can be calming and meditative, offering a peaceful break from daily life while contemplating the cosmos.

Kuwait National Planetarium Celebrates International Moon Day 2025

The Planetarium hosts many prominent and educational events.

In July 2025, the Kuwait National Planetarium, in collaboration with the Moon Village Association (MVA) and the National Council for Arts, Culture and Letters (NCCAL), marked International Moon Day with a series of engaging events. The celebrations took place from July 20 to July 24 at both the Kuwait National Planetarium and the Al Qibliyah School Cultural Center in Kuwait City, drawing lunar enthusiasts and the general public alike.

The festivities commenced on

July 20 with the IMD-25 Moon Day Conference and Exhibition. Visitors explored a Moon and Space Exhibition showcasing fascinating artifacts and scientific displays. Then, the Moon Day Conference took place, featuring live and virtual guest speakers who shared insights into lunar exploration and the latest developments in space science.

Following the conference, a Moon Workshop was held daily from July 21 through July 23. The workshop covered various topics related to lunar science, including detailed lunar observation sessions, discussions on the Moon's history and physical properties, and updates on current space missions. This hands-on workshop provided attendees with a comprehensive understanding of the Moon's significance in science and exploration.

The final event of the celebration occurred on July 24 with a live presentation and a specially curated planetarium show dedicated to the Moon. This immersive experience allowed visitors to reflect on humanity's monumental achievements in lunar exploration and look ahead to future space missions.

International Moon Day is observed annually on July 20, commemorating the Apollo 11 mission's historic first human landing on the Moon in 1969. The Kuwait National Planetarium's 2025 celebrations were part of a global effort to honor this milestone and inspire continued interest in lunar science.



Kuwait's Annual Pearl Diving Festival: A Living Heritage

Pearl diving holds a significant place in Kuwait's history, particularly before the discovery of oil in the 20th century.

As part of its ongoing interest in shedding light on different aspects of Kuwait's rich history, the Kuwaiti Digest would like to provide an overview of Kuwait's Annual Pearl Diving Festival in the following article.





Ancient Beginnings

- Pearl diving in the Arabian Gulf, including Kuwait, dates back over 7,000 years.
- Kuwait's location on the northern edge of the Gulf made it an ideal hub for maritime trade and pearl diving.

Golden Age (18th to early 20th century)

During the 18th and 19th centuries, pearl diving became the backbone of Kuwait's economy. Thousands of Kuwaiti men participated in seasonal pearl diving trips, which typically took place between June and September. Dhow boats were used for these expeditions, and each carried divers, haulers, a captain (nokhatha), and assistants.

Pearls were harvested from oyster beds in the warm, shallow waters of the Gulf.

Economic and Cultural Importance

Pearling provided livelihoods for

many and fostered a distinctive maritime culture. It also influenced Kuwaiti music, clothing, food, and social structures.

Pearl diving was dangerous and physically demanding, with divers often working without oxygen tanks or modern gear.

Decline (1930s onward)

- The global pearl market collapsed in the 1930s due to the invention and rise of Japanese cultured pearls.
- The discovery of oil in Kuwait in 1938 further diminished the need for pearl diving as a primary economic activity.
- By the 1950s, commercial pearl diving had all but disappeared.

Legacy Today

Although no longer an economic necessity, pearl diving remains a proud part of Kuwait's cultural heritage.

Annual festivals and traditional reenactments, such as the Dasha (departure) and Quffal (return) ceremonies, are held to honor this tradition.

The Annual Pearl Diving Festival

Pearl diving was historically Kuwait's main economic activity before the oil era. Though the pearl oyster market closed in 2000, the spirit of the trade lives on through the festival. Launched about 33 years ago, these annual expeditions are not about profit, but cultural education, immersing participants in traditional maritime practices, endurance, and teamwork.

Festival Features

1. Rigorous Training & Preparation

Prior to departure, 150 young divers aged 15–20 undergo both theoretical and practical preparation: mastering boat maintenance, diving techniques, and heritage crafts under veteran captains and historians.



diver music)—the festival deeply embeds Kuwaiti heritage.

Caulking with shark oil and noora refers to a traditional maritime

Teams conduct "Al Dasha" – the ceremonial farewell, boarding their dhows with traditional drums, attire, and fervor.

2. Five Days at Sea

Over a five-day voyage, participants dive repeatedly; holding their breath, collecting oysters using simple tools like neck baskets, nose clips, and toe anchors; and share meals like their ancestors to connect with the past.

Water is shallow (10-15 ft), and each dive is quick yet intense, reflecting the genuine historical experience.

3. Al Qaffal Ceremony

On the festival's final night, the Al Qaffal ceremony celebrates returning boats laden with oysters. Young mariners display their finds as crowds, traditional music, naval exhibits, and heritage crafts converge onshore.

Participants perform oyster opening ("Falaq"), followed by lowering the Kuwaiti flag in a solemn finale.



Symbolic Significance

- National unity & resilience: Under military and royal patronage, Maj. Gen. Fahad Al Fahad has emphasized how the expedition fosters cohesion and loyalty, linking youth to ancestral sacrifice.
- Cultural transmission: By reenacting every step—from dhow prep (caulking with shark oil and noora) to singing Fidjeri (traditional pearl

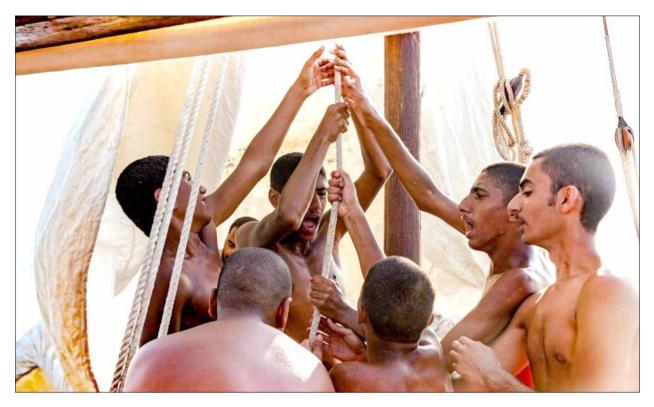
practice used especially in the Gulf region, including Kuwait, to seal and waterproof wooden boats, like dhows.

- Caulking is the process of filling the seams between wooden planks on a boat to make it watertight and prevent leaks.
- Shark oil is oil extracted from sharks, traditionally used as a natural waterproofing agent. It was prized for its ability to repel water and protect wood from rot and marine pests.
- Noora is a type of natural fiber or rope—sometimes made from date palm fibers or similar plant materials—used to fill the seams of the boat before applying waterproofing substances.
- How does it work together?

First, the noora fibers are packed tightly into the gaps between the wooden planks.

Then, shark oil is applied over the fibers and the wooden surface to seal everything and create a waterproof barrier.





Recent Editions

The 32nd festival in August 2023 marked the return after a COVID 19 pause, with around 60 divers embarking from Salmiya to Khairan.

The 33rd festival (August 10-15, 2024) hosted 150 divers across four wooden dhows donated by the late Amir, sailing from Salmiya and concluding with a televised Al Qaffal ceremony.

The festival is anticipated to be held as usual this year.

Support & Sponsorship

The Kuwait Sea Sports Club leads the organization, with past funding from various local bodies such Gulf Bank, Al Rawdatain Water, Kuwait Flour Mills & Bakeries, and Expo 965.

Royal patronage, from H.H. the Amir, reinforces its national and cultural stature.

Why the Festival Matters Today

1. Cultural revival: It revives pearl diving, a profession dat-

ing back millennia, through living practice.

- 2. Youth empowerment: It strengthens character, teamwork, and historical consciousness.
- 3. National identity: It spotlights Kuwait's maritime legacy amidst rapid modernization and oil wealth.
- 4. Tourism & community: It engages the public, educates

outsiders, and unites craftsmen, musicians, and families in celebration.

Kuwait's Pearl Diving Festival is more than folklore: it's a seasonal rite, a national classroom, and a pulse of cultural continuity. From the echoing drums of Al Dasha to the triumphant return in Al Qaffal, the festival immerses young Kuwaitis in their sea faring heritage, honoring past sacrifices and forging resilient unity for the future.



Scientific Center's Bahruna Expo

معرض المحاول

أسبوع الخرش SHARKWEEK



Overview of Bahruna Expo 2025

The Bahruna Expo, held from July 24 to 26, 2025, at The Scientific Center of Kuwait in Salmiya, was a national marine exhibition focused on ocean conservation, environmental awareness, and cultural heritage. Organized by the Scientific Center (TSCK), the event was designed to engage the public with Kuwait's maritime legacy while highlighting current scientific and environmental efforts to protect marine ecosystems. Although it took place alongside Shark Week, which is observed from 17-26 July, the expo had a distinct identity and broader objectives beyond shark conservation.

As part of KOC's ongoing commitment to education, environmental stewardship, and community engagement, the Digest explores the Bahruna Expo in the following pages. By showcasing the nation's rich maritime heritage and addressing pressing issues such as ocean conservation and ecosystem protection, the Expo resonated strongly with KOC's values. Through its broad, multidisciplinary approach, it impressively integrated scientific research, environmental advocacy, and cultural preservation. The Expo's alignment with KOC's sustainability priorities

Purpose and Objectives

The purpose of Bahruna Expo was to educate the public about marine biodiversity and the human impact on marine life, while also celebrating Kuwait's seafaring traditions. It provided a platform for cooperation between environmental authorities, universities, nonprofit organizations, and private-sector sponsors. The event emphasized Kuwait's close connection to the sea both historically and in its future development, advocating for sustainable practices and stronger environmental stewardship among citizens and institutions alike.

Key Participants

Among the participants were the Environment Public Authority, which presented environmental regulations and sustainability programs, and the General Directorate of Coast Guard, which showcased their role in marine law enforcement and coastal safety.

The Kuwait Heritage Society contributed with cultural exhibits on traditional fishing, pearl diving, and boat-building practices. The Kuwait Diving Team provided presentations on coral reef restoration, underwater cleanups, and their ongoing conservation efforts.

Other contributors included the Nawah Foundation and Kuwait University's Faculty of Marine Sciences, both of which presented scientific materials and encouraged citizen participation in environmental data collection. For its part, TSCK's own marine research unit (SCAFE) hosted educational displays on marine habitats and marine species native to the Gulf.

Formation of KOC Diving Committee

In this context, it is worth highlighting that based on the role



and social responsibility of KOC towards protecting the marine environment, a committee was established to support and carry out all related projects and activities for the marine environment.

The Committee is in charge of: supervising and follow-up maintenance for the KOC Marine Colony, Protection of Kuwaiti islands, coral reef protection, beach cleaning activities, completing all activities without disturbing KOC marine operations, as per KOC HSE & ISPS procedures, conducting all diving operations as dictated by KOC harbor master, communicating with KEPA and the coastguard, preparing divers registration and lists, preparing divers medical examination forum, and conducting monthly meetings for members. The Committee handles all its responsibilities by collaborating with necessary entities in the Company to fulfill the assigned tasks for the marine environment.

KOC Marine Colony

In 2005, the Kuwait Oil Company (KOC) constructed an artificial reef 4.3 nautical miles Southeast Mina Al-Ahmadi. Consisting of 1,000 reef balls deployed in clusters, the reef covers an area of 48,500 m2 (0.048 km2) in depths

from 7 to 9 meters. The purpose of this reef was to provide additional reef habitat to enhance fish stocks, rehabilitate the marine environment, and contribute to conservation. Before approval from Kuwait's Environmental Protection Authority (EPA) to create additional artificial reefs, evidence was needed to show that this artificial reef actually provided the intended benefits.

To determine if the artificial reef provided the benefits for which it was constructed, KOC funded a 30.25-month project with the following objectives:

- To assess the biological and ecological status of the KOC's artificial reef.
- To develop management guidelines for an artificial reef program.
- To train the KOC dive team on aspects of ecological assessment of reefs.

Some of the species being protected are as follows: cuttlefish, seabream, safi, damselfishes, jellyfish, barnacles, bivalves, urchins, and ophiuroid.

The survey results indicate that KOC's artificial reef ball clusters have created new habitats for a

range of marine species, including commercially important fishes. If additional reefs are to be constructed, KISR recommended that the new reef be placed in waters less than 5 m in depth and located adjacent to Kuwait' natural offshore reefs.

The results of the surveys of KOC's artificial reef demonstrate that reef ball clusters have the potential to increase coral reef habitats and biodiversity. To be effective, new reef habitats should be integrated into a larger reefrestoration project to rehabilitate Kuwait's ecologically important, but degraded coral reef at Kubbar Island using new integrated research design and techniques.

Activities and Exhibits

Bahruna expo featured a wide range of activities. Visitors could explore interactive learning stations such as 3D marine simulations, virtual diving experiences, and hands-on coral reef models. Children and families engaged in different contests and workshops focused on marine biology and ocean health. Traditional maritime exhibits displayed Kuwaiti dhow boats and vintage tools once used in the country's fishing and pearling industries, enriched by live presentations and discussions led by specialists from across Kuwait.

Scientific Demonstrations and Engagement

Scientific demonstrations were also a major component. Booths on site offered visitors the opportunity to learn about ocean currents, marine food chains, and the impact of plastic pollution on marine ecosystems. University students and researchers explained their work on species identification, coastal mapping, and water quality monitoring. Visitors could scan QR codes to participate in ongoing data collection or explore video content related to TSCK's marine programs.



Panels and Presentations

Panels and presentations were held throughout the three days, featuring marine scientists, government officials, environmental advocates, university researchers, and members of civil societv. The event was confirmed to include both academic experts and community figures such as vouth environmental clubs, marine science students, and retired maritime professionals. Their participation reflected the expo's broader goal of merging science with public education and cultural continuity.

Public Reception and Media Coverage

Public feedback was overwhelmingly positive. Attendance exceeded expectations, with families, students, and tourists praising the exhibition for being informative, inclusive, and interactive. The fact that the event was free with prior registration helped boost turnout. Local media outlets highlighted the expo's success in uniting education, culture, and environmental responsibility.

Visual themes for the expo emphasized the Gulf's marine life, using striking coral reef and ocean imagery alongside the Arabic word "include" (Our Sea). Materials were distributed through TSCK's official website and social media channels.

Beyond a side event to Shark Week, Bahruna Expo 2025 was a comprehensive and independent initiative aimed at strengthening national awareness about marine conservation and celebrating Kuwait's deep connection to the sea.

It combined science, tradition, youth engagement, and civic partnership in one of the most ambitious public events of the summer.

Scientific Center Expansion (2025)

The Scientific Center of Kuwait (TSCK) officially began unveiling its long-awaited expansion project in 2025, marking a major milestone with the opening of new interactive exhibits and facilities. This expansion, part of the center's 25th anniversary celebrations, aims to establish TSCK as a regional hub for science education, innovation, and sustainability.

Phase One: World of Science Exhibition

The first major feature of the expansion, the "World of Science" exhibition, was soft-launched on May 27, 2025. This highly interactive exhibit introduces themes such as innovation, energy, robotics, and engineering. It also includes a dedicated children's play area designed to foster early interest in science and exploration.

The expansion has been designed by Gulf Consult in collaboration with CambridgeSeven, the same firm that worked on the original Scientific Center which opened in 2000.

Upcoming Attractions and Future Phases

In addition to the World of Science, the next major feature in the pipeline is the "Power of Play" exhibit, developed in partnership with Finland's Heureka Science Centre. It is expected to open lat-

er in 2025 and will focus on the importance of learning through play, especially for younger audiences.

Looking ahead to 2026, TSCK plans to open a new Children's Museum, along with several other facilities currently under development. These include an Ecosystem Exhibit, a dolphinarium, an exploratorium (Dar Al-Estikshaf), a state-of-the-art education and conference center, and new visitor services such as shaded parking areas.

The entire expansion is designed with sustainability in mind and is targeting LEED Gold certification for environmental performance.

Collaborations and Strategic Partnerships

On June 25, 2025, the Scientific Center signed a Memorandum of Understanding with the Kuwait Institute for Scientific Research (KISR). This agreement focuses on collaborative efforts in environmental research, artificial intelligence tools, educational programming, and conservation projects involving marine and desert ecosystems.

This follows an earlier partnership with Kuwait University, signed in September 2024, aimed at integrating educational workshops and academic support into the center's new facilities and programs.

Full public access to the World of Science and future exhibits will roll out in stages, with more features expected to be unveiled throughout late 2025 and into 2026.

Through these developments, The Scientific Center of Kuwait is positioning itself as a leader in scientific education and environmental awareness in the Gulf region.









