



**2015
2016**

ConocoPhillips Qatar

Corporate Social Responsibility Report

www.conocophillips.qa



Ryan Lance, CEO and Chairman of ConocoPhillips, meets His Highness **Sheikh Tamim bin Hamad Al Thani**, Emir of the State of Qatar.

President's Message

At ConocoPhillips it is our sense of responsibility towards the people, environment, and communities where we operate which sets us apart. As I assumed the role of President of ConocoPhillips Qatar earlier this year, I was proud to join a business unit with a strong Corporate Social Responsibility (CSR) legacy. I am committed to ensuring we remain a dedicated and active community partner.

The 2015-2016 ConocoPhillips Qatar CSR report gives an overview of the important role ConocoPhillips plays in Qatar. As ConocoPhillips' headquarters in the Middle East region, our Doha office is of great significance to us, and we are particularly proud of the strong relationship that we enjoy with this thriving nation. As a testament to this we invest in key CSR programs which support of the country's long-term development plans as set out in Qatar National Vision 2030.

Our community role remains an important part of our work here in Qatar. We continue to work hand in hand with Hamad Medical Corporation (HMC) on our signature CSR initiative in Qatar, "Kulluna," an ambitious and far reaching health and safety campaign. We are extremely proud of the notable progress this campaign has made towards raising the level of public awareness regarding general health issues, and we look for new ways to educate and inform the local community about personal safety on a national scale.

The ConocoPhillips Global Water Sustainability Center (GWSC) at Qatar Science and Technology Park (QSTP) showcases our commitment to protecting the environment and ensuring that as many people as possible understand the importance of water sustainability. Launched in 2010, we have seen thousands of students visit the center and come away as informed ambassadors for water conservation to protect this precious resource in Qatar.

We strongly believe that our work is never so urgent or important that we cannot take the time to do it safely and in an environmentally responsible manner. The ConocoPhillips SPIRIT values – Safety, People, Integrity, Responsibility, Innovation, and Teamwork – that inspire all our actions also confirm that wellness and safety remain top corporate priorities. It is those values that we hope to spread and foster through Kulluna and our other CSR campaigns. With the continued support of our dedicated employees, partners, and stakeholders, and under the nation's visionary leadership, I am hopeful that together we can continue to make a real difference to the lives of people in Qatar and beyond.



Mr. Todd Creeger
President, ConocoPhillips Qatar



Introduction

Since becoming an independent exploration and production (E&P) company in May 2012, we have focused solely on our core business of finding and producing oil and gas globally.

We endeavor to fully demonstrate our assets, capabilities, and resources while striving to make a tangible difference in the communities where we operate. This applies to our financial and operational performance, and the way we do business, as ConocoPhillips has a time-honored tradition of placing safety, health, and environmental stewardship at the top of our operating priorities. Our technical capability, asset quality and scale, and financial strength are unmatched among independent E&P companies and uniquely position us to compete anywhere in the world. Our production includes light oil, oil sands, natural gas liquids, conventional natural gas, coal seam gas, tight oil and gas, and liquefied natural gas. In the region, we have partnered with Qatar Petroleum and Qatargas to share these capabilities.

In 2003, ConocoPhillips and Qatar Petroleum signed a Heads of Agreement to develop Qatargas 3, a large-scale liquefied natural gas (LNG) project in Ras Laffan Industrial City, Qatar. ConocoPhillips holds a 30 percent interest in this integrated project, comprising of approximately 1.4 gross BCFD of natural gas production over the 25-year life span of the project, as well as an initial average volume of approximately 70 gross MBPD of liquefied petroleum gas and condensate combined from Qatar's North field. The project also includes a 7.8 million gross tons per annum LNG facility. The first LNG cargo was loaded in November of 2010, with LNG carriers owned by Qatargas Transport Company (Nakilat) and chartered to Qatargas 3.

To capture cost savings, Qatargas 3 executed the development of the onshore and offshore assets as a single integrated project with Qatargas 4. This included the joint development of offshore facilities situated in a common offshore block in the North Field as well as the construction of two identical LNG process trains and associated gas treatment facilities. Production from these LNG trains, and associated facilities of Qatargas 3 and Qatargas 4, are combined and shared. This project is part of the world's largest LNG complex, and is one of ConocoPhillips' key assets.

We are proud partners of Qatargas, and our partnership with Qatar Petroleum is a shining example of how the State of Qatar and ConocoPhillips Qatar are working safely and responsibly to provide the world with the energy it needs.





ConocoPhillips Qatar Vision Statement

Guided by our SPIRIT values, we will be the E&P partner of choice by sharing world class technologies and expertise and pioneering a new standard of excellence to contribute towards the Qatar National Vision of human, social, economic, and environmental development.



ConocoPhillips Qatar Mission Statement

To proactively enhance the value of ConocoPhillips' partnership in Qatar.

SPIRIT Values

Our SPIRIT Values consist of Safety, People, Integrity, Responsibility, Innovation, and Teamwork. Our vision and values are essential building blocks in the continued success of ConocoPhillips.

We further define and uphold our values through a number of policies and position statements such as our Code of Business Ethics and Conduct, Health, Safety and Environment Policy, and Diversity and Inclusion Position.



Qatarization

Qatarization is a strategic initiative by the Government of Qatar to provide employment for its citizens in the private and public sectors. As one of the goals of Qatar National Vision 2030, Qatarization addresses positions that are integral to the business plans of private and public-sector entities. We seek to provide Qatari citizens with meaningful, permanent employment. In order to help achieve this, Qatarization continues to be one of ConocoPhillips' key commitments in Qatar.



Working at ConocoPhillips Qatar is an ongoing opportunity to experience a fast-paced, dynamic environment, where the right mentorship and leadership gives me the confidence to know that my skills, technical abilities, and qualifications are on par with international standards and expectations. I am a proud Qatari working alongside multicultural professionals, and feel that I am continuously learning and developing my skills and knowledge. I started my career with ConocoPhillips as a sponsored student from Qatar University and then went on to become a student intern. Two years later, I am now fully employed in a job that I love. I am looking forward to a great career with the company.

- Latifa Al-Kubaisi, ConocoPhillips Accountant (pictured right)



“

I am a Qatari national employed at ConocoPhillips Qatar's GWSC. I am proud of my work and of being part of the GWSC, not only as one of the growing number of women making scientific contributions, but also to introduce the important work we are doing to the rest of my country. The GWSC feels like my family; we all depend on each other, and work together to improve the world for generations to come.

- Eman AlShamari, Assistant Scientist at GWSC

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ConocoPhillips Qatar is fully dedicated to providing appropriate job opportunities for Qatari nationals while simultaneously fostering younger Qataris in order that they too may eventually benefit from this pioneering initiative. ConocoPhillips Qatar's Human Resources function performs the fundamental role of helping to achieve the Qatarization target by identifying and nurturing the talents of Qatari nationals. As the world's largest independent Exploration & Production (E&P) company based on production and proved reserves, our operations provide unparalleled learning opportunities in which we foster knowledge transfer to local talent, building skills.

Qatarization is a significant investment for ConocoPhillips in support of Qatar National Vision 2030's human development pillar and the National Development Strategy.



Eman AlShamari, Assistant Scientist at GWSC

Mission:

To proactively enhance the value of ConocoPhillips in Qatar.



Corporate Social Responsibility (CSR), the **ConocoPhillips** Way

At ConocoPhillips, we pride ourselves on our deep-rooted commitment to contributing to social, economic, and environmental progress in all communities where we operate. The company currently funds numerous environmental, social, health, and education programs around the world, and we endeavor to be a responsible citizen wherever our employees and stakeholders live and work.

The company invests in communities around the world through charitable contributions, community engagement, volunteerism, sponsorships, and civic leadership. We believe the most effective social and charitable investments are made through strategic relationships with organizations dedicated to serving our communities, day in and day out.



Streamlining our focus

ConocoPhillips' approach to social and community investment in Qatar begins with the company's culture and values. These guide our relationships and provide the framework on which we build global practices for social and community investment. We invest in programs that provide sustainable community development, benefit our stakeholders, align with our identity, and are consistent with our core values. Primarily, our focus is in three areas – education, health and safety, and the environment. We recognize that our employees are the company's best ambassadors to the communities in which we operate. Therefore, we encourage and support their involvement in our social outreach initiatives.

Health & Safety

We invest in health and safety because it is one of our core values and priorities. We are motivated to support initiatives that improve the health and safety of our employee and stakeholder base. Through our community investments, we strive to improve health care in targeted communities where our employees and stakeholders live and work, improve industrial and workplace safety, and advance healthy lifestyles.

Environment & Water Sustainability

Our dedication to environmental and water sustainability underpin our commitment to social investment that develops solutions for a better tomorrow. We put a particular emphasis on finding more sustainable ways to do business, and use this research to advance the communities in which we operate to improve the lives of our employees, stakeholders, and fellow community members for the future.

Education

Investing in education is critical to the continued development of the global workforce that will drive our economic future. We are particularly compelled to support the development of skills critical to our company's success. Through our social engagement programs, we strive to improve skills and advance research in secondary and technical education, support diversity within the talent pool of the math, science, and engineering disciplines, and improve the effectiveness of education.



TABLE OF CONTENTS

24 

COMMUNITY
Our success stories

58 

**ENVIRONMENT
& WATER SUSTAINABILITY**

82 

**WATER SUSTAINABILITY
RESEARCH & DEVELOPMENT (R&D)**

94 

CONFERENCE & EXHIBITIONS

122 

KNOWLEDGE SHARING

132 

AWARDS & RECOGNITION

142 

EMPLOYEES SOCIAL ACTIVITIES

We invite all stakeholders to provide us with comments and feedback through the following channels:

 <https://www.instagram.com/conocophillipsqatar/>

 infoqatar@conocophillips.com



COMMUNITY 
Our success stories

Kulluna **كلنا** continues to make a real difference

Kulluna is ConocoPhillips' signature corporate social responsibility (CSR) campaign in Qatar, launched in partnership with Hamad Medical Corporation (HMC). Meaning "all of us" in Arabic, Kulluna is an ambitious national health and safety awareness campaign featuring a number of initiatives which aim to raise awareness about preventable injuries and illness, improve health and safety at home, and give information about medical services and facilities offered by HMC. Now in its fifth year, the campaign is making a genuine impact in people's lives as it continues to expand its scope and community reach.



Kulluna for a Healthy Heart screening booth

Kulluna كلالنا for a Healthy Heart campaign

Amongst our proudest achievements is the Healthy Heart campaign. This high-profile campaign, which is the most successful Kulluna initiative, looks to address heart disease, obesity, and unhealthy lifestyles, all of which are recognized as leading causes of death on a global and national level. We wanted to bring these issues to the forefront in Qatar, and get people thinking about their own heart health with the goal of encouraging everyone to lead a more active and healthy life.

In order to reach the community, the Kulluna for a Healthy Heart campaign has continued to work together with HMC, Qatar's national health provider, holding numerous outreach activities in the country's shopping malls.

At Kulluna's pop-up booths, people are invited to undergo a free health check which includes tests for blood cholesterol, blood sugar, height, weight, blood pressure, and BMI. The Kulluna Healthy Heart team, comprised of multidisciplinary professionals from HMC, offers people a range of advice and examinations for those concerned about their heart health. Kulluna also offers opportunities to speak with healthcare experts to learn about the risk factors and warning signs of heart disease, and some potential lifesaving steps needed to help someone suffering from a heart attack.

For the second year, the Kulluna Healthy Heart team was pleased to welcome visitors of this year's Qatar International Food Festival (QIFF) to its booth at the Museum of Islamic Art Park. Once again, visitors were given the opportunity to sign up for on-the-spot free check-ups. Kulluna's participation in this local festival has been a resounding success on both occasions, with large numbers of visitors receiving expert information on how to stay healthy.

The Kulluna for a Healthy Heart screening booths continue to be very popular among various sectors of the community in Qatar, a strong testament to the impact and increasing understanding of the importance of this initiative under ConocoPhillips' strategic pillar of health and safety.



Some of the key topic areas stressed by the Healthy Heart campaign are encapsulated by Kulluna’s “Know Your Numbers” campaign, focused on:

- Facts about high blood pressure
- Care about cholesterol
- Heart Attack- act now!
- Diabetes and heart disease
- Obesity and heart disease
- Quit smoking now!
- Physical activity for a healthy living
- Check your medicines

In 2015 and 2016, the Kulluna team conducted over 19,000 on-the-spot tests for the local members of the community.



A ConocoPhillips employee completing biometric tests with the help of a HMC specialist



ConocoPhillips employees taking part at the Qatar International Food Festival 2016

Kulluna كئلنا “Beat the Heat” campaign

During the summer months in Qatar, temperatures soar along with cases of dehydration and heat-related illnesses. We felt there was a need in the community to educate the public, especially those who work outdoors, about the signs, symptoms, and prevention techniques of such illnesses.

To reach as many people as possible, the Kulluna team used a mobile center to visit various locations around Qatar including public spaces as well as work sites. To ensure our ability to communicate fluently with key demographics, the “Beat the Heat” campaign is delivered in five languages: Arabic, English, Nepalese, Malayalam, and Hindi.

One such activity was a visit to Qatar Airways in the summer of 2015. Kulluna’s specially designed mobile unit passed out 5,000 heat kits, which included hats, water bottles, and educational material, to staff onsite. Airport and runway staff working outdoors for much of the day particularly benefited as a result of the visit.

The campaign continues to deliver on its intention to reduce the number of heat related illnesses in the country, stressing that prevention is the best defense against such health issues. It also ensures symptoms are understood and spotted early, empowering people to take action when needed.



Kulluna's mobile unit at Hamad International Airport



Qatar Airways staff receiving their heat kits onsite, which included hats, water bottles, and educational material

Kulluna كلالنا "Child Safety" campaign

The Kulluna Child Safety campaign was created to help educate the Qatar community on a variety of everyday situations where children's health and wellness might be in jeopardy. In partnership with Safe Kids Worldwide, Kulluna kicked off a targeted child safety campaign titled "Keep Us Safe!" focusing on the prevention of accidental injuries to children at home, on the road, around water, and in public places.

Hosting country-wide road shows, Kulluna mobile units were activated to visit popular family destinations such as local shopping malls, schools, and popular community gathering places. In doing so, the campaign has reached families, students, teachers, and school nurses. It has made great progress in expanding its messaging efforts to ensure the public understands its role in keeping our youth safe.



Kulluna mobile units, which have been designed to educate the community in the importance of child safety



Students holding child safety booklets containing tips on how to prevent home safety incidents

Kulluna كلنا Ramadan campaign

The holy month of Ramadan is an opportunity for Muslims to make changes in their lives to embrace a balanced and healthy lifestyle. When practiced properly, fasting during Ramadan helps manage eating habits and improve self-discipline. However, it can often result in overeating when breaking the fast.

Aimed at empowering the community with information on health and eating issues related to fasting, Kulluna distributes booklets in both Arabic and English during the observance of the holy month. Due to its deeply rooted cultural relevance to the local community, this initiative has achieved great success and continues to leverage information designed in collaboration with HMC's top doctors and specialists.



From left to right: Dr. Mahmoud Younis, Assistant of Health Promotion and Community Engagement at HITC, Sarah Mroueh, communication and public affairs manager at ConocoPhillips, Dr. Khalid Noor Saifeldeen, Director of HITC and Chairman of Kulluna



Scenes from Kulluna's Ramadan campaign, in which free, on-the-spot biometric tests were administered to the general public

Kulluna كلالنا car passenger safety

Working with Hamad International Training Center (HITC), we launched a series of training courses on the vital importance of car safety for children. The successful Child Passenger Safety Training (CPST) courses at HITC were designed to help families find safe and practical solutions to keep their children safe while on the road.

CPST courses empower community members to become resources for others by becoming nationally certified child passenger safety technicians. Due to the fact that a majority of parents do not fully understand how to use child restraints, training is needed to ensure that children in Qatar are adequately protected on the road.

The training connects attendees to healthcare professionals for a mixture of lectures, workshops, and practical exercises using real cars and special car seats. Kulluna also offers a related course for families of children with special needs.

The CPST initiative was first launched in 2013 under the umbrella of Kulluna and in partnership with HITC and Safe Kids Worldwide.



A CPST trainee projects the correct method of setting up a car seat



A new graduate technician during a CPST course at HITC



Graduates of HITC's CPST courses

Kulluna كلالنا general outreach: going the extra mile

Kulluna was a proud platinum sponsor of the inaugural edition of the Qatar International Medical Congress (QIMC), which took place from May 26-28, 2015 at the Qatar National Convention Centre (QNCC).

The Congress was developed to support the region’s medical sector, connecting innovative companies around the world to leading entrepreneurs, doctors, and researchers.

Kulluna hosted two stands at the event to promote its highly acclaimed “Healthy Heart” campaign. The interactive stands invited delegates to learn more about heart disease risk factors and prevention. Attendees were invited to sign up for free checkups provided by HMC medical professionals. These measured heart rate, blood pressure, blood sugar, BMI, and cholesterol levels.



Dr. Hanan Al-Kuwari, Minister of Public Health (fourth from left), with Qatar University public health students at of the healthy heart activities



Scenes from the healthy heart booth at QIMC





Kulluna signs MOU with Qatar University for collaboration in training public health students

On July 9, 2015, Kulluna signed a Memorandum of Understanding (MOU) with Qatar University's (QU) College of Arts and Sciences to provide the University's public health students opportunities for experiential learning. The signing ceremony was attended by officials from ConocoPhillips Qatar, HMC, and Qatar University.

The strategic agreement allows HMC to contribute to a tailored course on CSR and health promotion for the public health students. The training helps the students apply theoretical learning to practical, real-life situations they might face as part of Qatar's health care workforce. Since the MOU was signed, a total of 75 students in four batches have progressed through the program, learning about the development of successful CSR campaigns by using Kulluna as a case study. ConocoPhillips' CSR campaigns are also examined in one of the course modules.

This MOU is a step towards further improving the far-reaching Kulluna initiative. The collaboration underpins ConocoPhillips' dedication to its CSR pillars of education and health and wellness.



Scenes from the MOU signing event at QU



From left to right: Dr. Eiman Mustafawi, College of Arts and Science Dean at QU, Mr. Ali Al-Janahi, Chief of Business Services at HMC, Dr. Khalid Abdulnoor Saifelddeen, HITC Director and Chairman of Kulluna, Dr. Abdullatif Al Khal, Deputy Chief of Medical, Academic and Research Affairs at QU

Kulluna كئناا hosts ConocoPhillips CSR strategy workshops with Qatar University (QU) students

In conjunction with HMC, ConocoPhillips contributes to the training of QU's public health students by leading an educational module on CSR. The Communications and Public Affairs department hold an interactive presentations on the company's societal engagement activities. Students, who are likely to be involved in CSR campaigns upon joining the workforce, were urged to think critically about CSR strategy and implementation.

The informative session surveyed ConocoPhillips' CSR philosophy and approach, focusing on how to create impactful, valuable CSR campaigns that meaningfully contribute to society.



QU Public Health students attending the interactive session



Todd Creeger, ConocoPhillips Qatar President, commented:

“

As founding sponsor of Kulluna, we are proud to be hosting workshops for young public health students as part of a program set to introduce students to real experiences in the workplace. It is an opportunity for them to learn, ask questions and be part of a process that allows them to understand what will be expected of them once they graduate and enter into the workforce themselves.

”

Kulluna كئلنا at GCC Traffic Week 2016

Kulluna, along with around 60 other government and non-government entities, are staple participants in GCC Traffic Week, hosted by the Ministry of Interior at Darb Al-Saai. Under the theme, “Your decision determines your destiny,” each entity develops activities to promote road safety and proper driving practices.

The Kulluna team delivered on its commitment to raise awareness and educate the community about the importance of child car seat usage throughout the week-long event. Kulluna displayed various types of available car seats in Qatar, and held workshops by Child Passenger Safety (CPS) technicians to show parents, children, teachers, and adults the correct way to fit car seats. Visitors were able to seek advice from Kulluna’s trained safety experts about the appropriate car seat for their child.

Kulluna also promoted its regular CPS courses for industry professionals and parents.



A Kulluna safety expert demonstrates proper seat belt and car seat usage for students



Students visiting Kulluna's mobile unit to learn about car seat safety



Kulluna كulluna takes part in Qatar National Day Celebrations at Darb el Saai

Kulluna, along with partner HMC, took part in the annual celebrations to commemorate Qatar National Day at Darb el Saai. The national holiday offers a chance for the community to experience a variety of educational, entertainment, and leisure activities, as well as commemorate Qatari history and honor traditions.

At the month-long event at Darb el Saai, the Kulluna team showcased its signature “Healthy Heart” campaign, encouraging visitors to check their cholesterol levels and monitor for diabetes. Kulluna also showcased its car passenger safety program.

Due to the diverse crowds and various age groups, the Kulluna space at Darb el Saai was specifically designed to be fun, engaging, and entertaining, with each experience customized to suit the needs of the audience.



From left to right: H.E. Sheikh Abdullah bin Nasser Al-Thani, Prime Minister, Mr. Mohammed Al-Nuami, Chief of Staff, office of the Managing Director at HMC, Dr. Abdulrazaq Al-Emadi, Senior Consultant Ophthalmology at HMC, and Dr. Khalid Abdulnour Saifeldeen, Director of HITC and Chairman of Kulluna

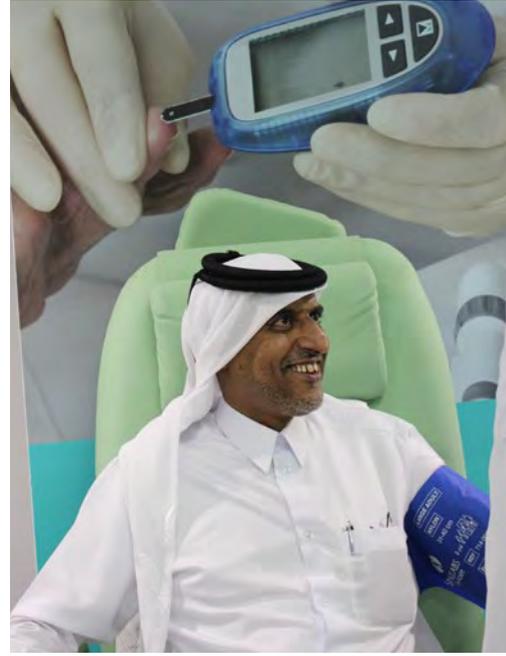


Dr Khalid Abdulnour Saifeldeen interacts with students at Darb el Saai





Dr. Hanan Al-Kuwari, Minister of Public Health, visiting a home safety caravan



Sheikh Hamad bin Nasser Al-Thani completing a biometric test at Kulluna's healthy heart booth in Darb El Saai



Young students learning about car seat safety (left) and home safety (right)



Students interact with Kulluna's specialist at the healthy heart booth

Kulluna كئئنا QATAR National Sports Day

Qatar National Sports Day is a national holiday held annually on the second Tuesday of February with the main objective of promoting a healthy lifestyle among the country's population.

Kulluna brought doctors and nurses to the beachfront promenades of Katara Cultural Village, a popular community gathering place. In one of the year's most successful activations, Kulluna engaged hundreds of people, young and old, with an action-packed program of exercise, sports, games, and health workshops.

Activities included a basketball shoot-out, tug of war, relay race, hula hoop challenge, egg and spoon race, space hopper race, and a sack race rally. Also on offer to the thousands of people at Katara Beach was the opportunity to have on-the-spot health checks taken by HMC's expert doctors.

Two caravan booths offered free biometric screenings including blood pressure tests and weight assessment tests through our signature 'Know Your Numbers' campaign. Group CPR lessons as well as stretching workshops were also hosted throughout the day, along with distribution of pamphlets providing information on leading a healthy lifestyle.



The Kulluna group stretching session at Katara Cultural Village



An attendee demonstrating her knowledge of CPR at Kulluna's Qatar National Sports Day area



Scenes from the group CPR sessions





COMMUNITY 

Kulluna Statistics 2015 - 2016



كلنا Kulluna

For health & safety للصحة والسلامة



- International Petroleum Technology Conference
- The Gate Mall, Healthy Heart
- Qatar Boat Show
- Katara Healthy Heart
- Awareness Exhibition
- Gulf Mall, Healthy Heart
- QIMC Healthy Heart - QNCC
- Middle East Forum - QNCC
- Project Qatar - QNCC
- Kahramaa Safety Day
- Qatar International Food Festival (QIFF)
- Qatar National Sports Day
- Land Mark, Healthy Heart Campaign
- Hamad Hospital Forum, Healthy Heart
- Ooredoo Marathon, Healthy Heart
- International School of London Healthy Heart
- GCC Traffic Week, Healthy Heart
- Ezdan Healthy Heart



- Land Mark, Healthy Heart
- Gulf Mall, Healthy Heart
- The Gate Mall, Healthy Heart
- QIMC 2016, Healthy Heart
- Qatar Kerla Isih Center
- Qatar Exchange, Healthy Heart
- Qatar Boat Show
- Qatar Food Festival
- Qatar National Sports Day
- Qatar National Day
- Kahramaa, Healthy Heart
- Qatar Development Bank
- Qatar International Medical Congress, Doha
- Protection and social rehabilitation Centre

Total number of visitors

9978

Total number of visitors

13306



ENVIRONMENT & WATER SUSTAINABILITY 



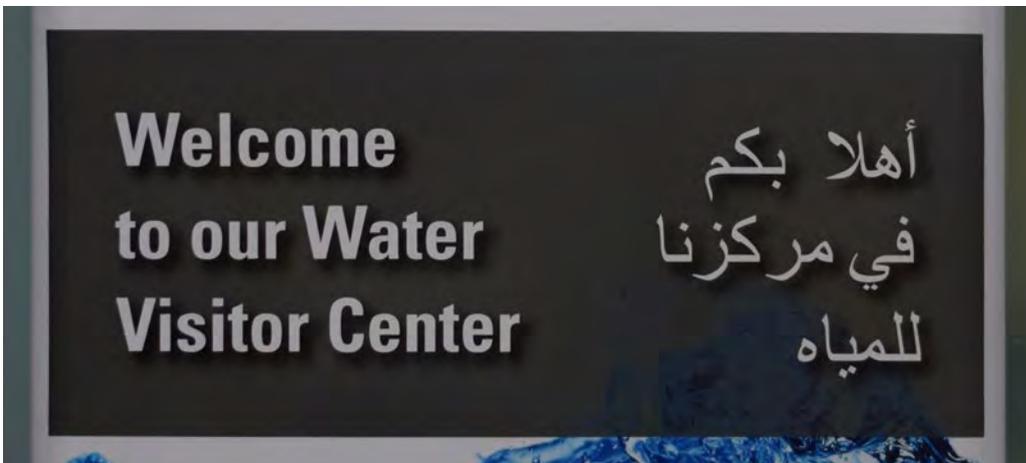
About The Global Water Sustainability Center (GWSC)

The Global Water Sustainability Center (GWSC) is ConocoPhillips' internationally renowned center for the analysis and treatment of produced and processed water from oil and gas operations. The GWSC focuses on developing and applying innovative solutions for the desalination and treatment of wastewater from Qatar's oil and gas processes. While the GWSC's primary focus is finding solutions for the State of Qatar, it is also keen on disseminating its knowledge globally.

The GWSC occupies 1000 m² in the Qatar Science and Technology Park (QSTP). Its facility comprises a Water Visitor Center, advanced bench and pilot-scale treatability testing equipment, and state-of-the-art analytical laboratories.

The process engineering and treatability laboratories of the GWSC include bench-scale test equipment for various conventional and innovative technologies such as membrane bioreactors, reverse osmosis, membrane distillation, osmotic concentration, and ion exchange.

The analytical laboratories are fully equipped to carry out a wide range of water-related analyses, including gas chromatography, mass spectroscopy, inductively coupled plasma spectroscopy, particle size distribution, and X-ray diffraction.



School children engaging with the GWSC scientists at the Water Visitor Center



Water Visitor Center

A cornerstone of the GWSC’s community outreach efforts is the Water Visitor Center and its conservation awareness program. Since its opening in 2010, this program has been educating children, teachers, and other adults about the importance of water conservation. In 2015-2016, another 1,701 students and adults toured the Water Visitor Center, bringing the total visitor number to over 6,000.

Visitors are guided by GWSC scientists and engineers through exhibits about methods of conserving water both inside and outside the home. Interactive presentations and games explain where and how fresh water is produced in the State of Qatar. Each school visit concludes with the children pledging to promote water conservation in their homes and to encourage family members to do likewise.



Student visiting the GWSC listen to a ConocoPhillips employee explain the importance of conserving water

GWSC Statistics 2015 - 2016



Arabic School = 266

- Musab Bin Omair Secondary Independent School for Boys
- Rodah Bint Mohammed Secondary School for Girls
- Nosaiba Bint Kaab Girls Primary School for Girls
- Jawaan Bin Jassim Primary School for Boys
- Qatar Primary School for Girls
- Khalifa Independent Secondary School for Boys
- Hajar Primary Independent School for Girls
- Ali Bin Jassim Secondary School for Boys
- Abo Obaidah Secondary School for Boys
- Tariq Bin Ziad Independent Secondary School for Boys
- Al-Kawthar Secondary School for Girls

Arabic School = 123

- Abdullah Bin Turki Model Independent School for Boys
- Omar Bin Alkhattab Independent Secondary School for Boys
- Khadija Independent Primary School for Girls
- Hajar Primary Independent School for Girls
- Ali Bin Abdullah Model Independent School for Boys
- Nosaiba Bint Kaab Girls Primary School for Girls
- Al Markhiya Primary Independent School for Girls
- Musab bin Omair Independent Secondary School for Boys

English School = 700

- Doha Academy
- English Modern School
- Birla Public School
- Bhavans Indian School
- Qatar Academy
- American School of Doha
- QP Mesaieed International School
- Middle East International School

English School = 561

- Qatar Academy
- Qatar Academy, Al Wakra
- Mesaieed International School
- American School of Doha

Total number of students visited

1650

Other Adults

51

Total Number of Guests Touring the Water Visitor Center

1701



Proudly educating 6000 students

Recognizing that all water conservation efforts depend on public awareness and an understanding of the need for conservation, ConocoPhillips' GWSC Visitor Center takes on an active role in promoting reductions of water misuse, waste, and loss.

The Visitor Center is a showcase of water—how it defines the past, and guides the future, of the country. It deepens knowledge about the technology that is needed to develop sustainable water supplies, but also promotes the need for conservation and stewardship to ensure sustainable supplies for continued growth and economic prosperity.

The Visitor Center endeavors to teach through dynamic, fun, and interactive educational methods. These help children learn wasting even one drop of water has consequences. As a result, the experience helps them value this scarce natural resource and change wasteful consumption behaviors. Encouraging children to keep taps turned off while brushing teeth and washing hands, and avoiding taking long showers, can motivate them to promote water conservation in their respective homes by discussing it with their parents and siblings. Through these efforts, many liters of water can be saved each day.

The 300 m² GWSC Visitor Center, located in Qatar Science and Technology Park (QSTP), opens its doors to students from the ages of 9-16 enrolled in schools in Qatar. Being a child-friendly venue, the Center prioritizes hands-on learning from the start, when visitors enter through a captivating “fog gate” made of fine water droplets.

Its educational tour takes one to two hours, and is divided into five parts. First, students learn about the importance of water and how limited it is on the global level. Next, they get to know about Qatar's water resources and how they are utilized. Third, students are introduced to innovative technologies used to treat water. Tour leaders then encourage attendees to make a commitment to teach their families and friends about water conservation. Finally, the children are taught valuable tools to minimize their personal water consumption, with each student being given a certificate of attendance. The center also bestows on them the responsibility of being conscientious water conservation ambassadors.

The GWSC is a global center of excellence for desalination and produced water management, befitting its unique position in Qatar. The GWSC's educational program is critical to promoting water conservation amongst Qatar's next generation and leaders of tomorrow, one school at a time.



After students visit the GWSC, they become conscientious ambassadors of water's importance and fragility, and serve as catalysts in changing patterns of behavior so we can conserve our limited water resources.

- Dr. Samer Adham, Water Solutions Manager and Director of GWSC





Tarsheed Collaboration

In line with the commitment to environment and water sustainability, ConocoPhillips and its Global Water Sustainability Center signed a Memorandum of Understanding (MOU) with Qatar General Electricity and Water Corporation (Kahramaa), outlining a commitment between the parties to share knowledge and collaborate on different projects and community initiatives that promote sustainable development in Qatar.

Following the MOU, ConocoPhillips will support Kahramaa's Tarsheed initiative, the national campaign for the conservation and efficient use of water and electricity in Qatar. The campaign's aim is to encourage conservation of electricity and water, as well as the efficient use of energy to stop waste to save Qatar's natural resources for the coming generations. The many outreach initiatives of Tarsheed, and further programs in the fields of education, research, and community development are supported by ConocoPhillips and the GWSC in Qatar.

Kahramaa, in turn, committed to supporting ConocoPhillips as it works to optimize the sustainability of its existing facilities. Moreover, Kahramaa will provide awareness lectures, Training of Trainers (TOT) workshops, and publications to all ConocoPhillips' research staff and centers including the GWSC.

The agreement, a collaborative use of resources and expertise, will lead to the development of joint research projects and outreach activities that will enhance and promote sustainable development within the research community, to the benefit of the Qatari society at large.



Gary Sykes, former ConocoPhillips Qatar president, receiving an award from H.E. Dr. Mohammed Bin Saleh Al-Sada Minister of Energy and Industry



المؤسسة العامة القطرية للكهرباء والماء
Qatar General Electricity & Water Corporation

Joining hands with Kahramaa to promote water sustainability on World Water Day

In celebration of World Water Day and GCC Conservation Week, the GWSC joined hands with the Kahramaa to host a series of activities focused on water conservation for primary school students. The initiative, which took place on March 24, 2015, was part of Kahramaa’s three-day festival held at Doha’s Diplomatic Club.

GWSC scientists organized an entertaining program for over 350 third-graders from four local schools for the event, which was designed to highlight the importance of water in sustainable development.

In order to stimulate thinking and creativity, students were invited to take part in several activities, all of which underscored water’s integral role in their lives. One activity encouraged the third-graders to paint a picture of how they imagined Qatar’s future to be if the community made an effort to conserve more water. Another activity was a puzzle in which students were challenged to come up with novel ways to save water at home. By educating the next generation about the importance of water conservation, the event prepared the students to be responsible, informed, and conscientious consumers of the world’s most precious natural resource.



Ms. Somaya Al-Mutawa, Public Relations Consultant at Kahramaa, commented:



ConocoPhillips’ focus on water sustainability in Qatar mirrors our own. Therefore we were proud to have GWSC employees contribute their expertise during these interactive sessions. The students who experienced this interactive program will not soon forget these valuable lessons about water conservation, and its bearing on the future of our country.





Scenes from the World Water Day event



Kahramaa | ConoTarsheed

In July 2016, discussions between ConocoPhillips and Kahramaa began on a collaborative effort to educate employees of government ministries and agencies about the importance of water and water conservation.

In the fall, the Cono-Tarsheed program was launched. As a part of the program kick-off, employees from Kahramaa toured the GWSC Visitor Center and learned about the GWSC's various projects. The Cono-Tarsheed program is continuing into 2017.



Eng. Saleh Hamad Mohammed Al-Marri and other Kahramaa staff touring GWSC laboratories (above) and Water Visitor Center (below)





Discover America

The GWSC celebrated the second annual Discover America Week Qatar 2016 by hosting Her Excellency Dana Shell Smith, U.S. Ambassador to Qatar, for a special tour of its facilities. As an American company, ConocoPhillips' GWSC was keen to participate in Discover America Week Qatar, a week-long initiative held from February 15-22, 2016 to acknowledge and support the partnership between the U.S. and Qatar. As a testament to the GWSC's successful cooperation in Qatar, Mr. Hamad Al Kuwari, Managing Director of QSTP, was also in attendance.

During the visit delegates toured the labs where they met the GWSC's team of scientists and engineers. The team showcased their advanced treatment and analytical capabilities, and award winning initiatives.



Ambassador Smith greets visitors of the GWSC Water Visitor Center



Her Excellency Ambassador Dana Shell Smith, U.S. Ambassador to Qatar, commented during the visit to GWSC:



It is rewarding to see American companies contribute to research and development, as well as social responsibility efforts, as they develop their businesses abroad. ConocoPhillips is taking important steps to promote water conservation, water security, and education in Qatar to ensure that future generations continue to prosper.





Scenes from Ambassador Smith's visit to the GWSC at Qatar Science and Technology Park



A ConocoPhillips employee speaks to visiting students at the GWSC



Friends of the Environment Awards

In 1996, Friends of the Environment (FOE) launched its annual Friends of the Environment Awards for schools to promote environmental awareness. The competition aims to recognize schools in Qatar for their achievements in academic excellence, school spirit, and sustainable projects to promote the environment.

Since 2006, ConocoPhillips has been the exclusive sponsor of this competition. The awards ceremony is held annually at the Qatar National Theatre, and is attended by students and teachers from all the winning schools. Eman Al-Shamari, a GWSC Assistant Scientist, gave a speech at the 2015 ceremony reminding students of the importance of water conservation and their role in guaranteeing the future of Qatar's water supply.



Eman Al-Shamari receiving the FOE award from Mr. Yousif Ali Al-Kadhim, General Supervisor of the award



Eman Al-Shamari giving her speech during the event



Sarah Mroueh, communication and public affairs manager at ConocoPhillips Qatar, interacting with the students



Annual GASNA Awards

The GASNA competition is an annual science fair competition focused on educating Qatari youth about the country's important gas industry. The experience leaves them better informed about its technology, infrastructure, and the resources that are crucial to Qatar's development. As sponsors of this competition, the GASNA Awards allows ConocoPhillips to reaffirm our commitment to Qatar and its future generations of scientists and engineers.

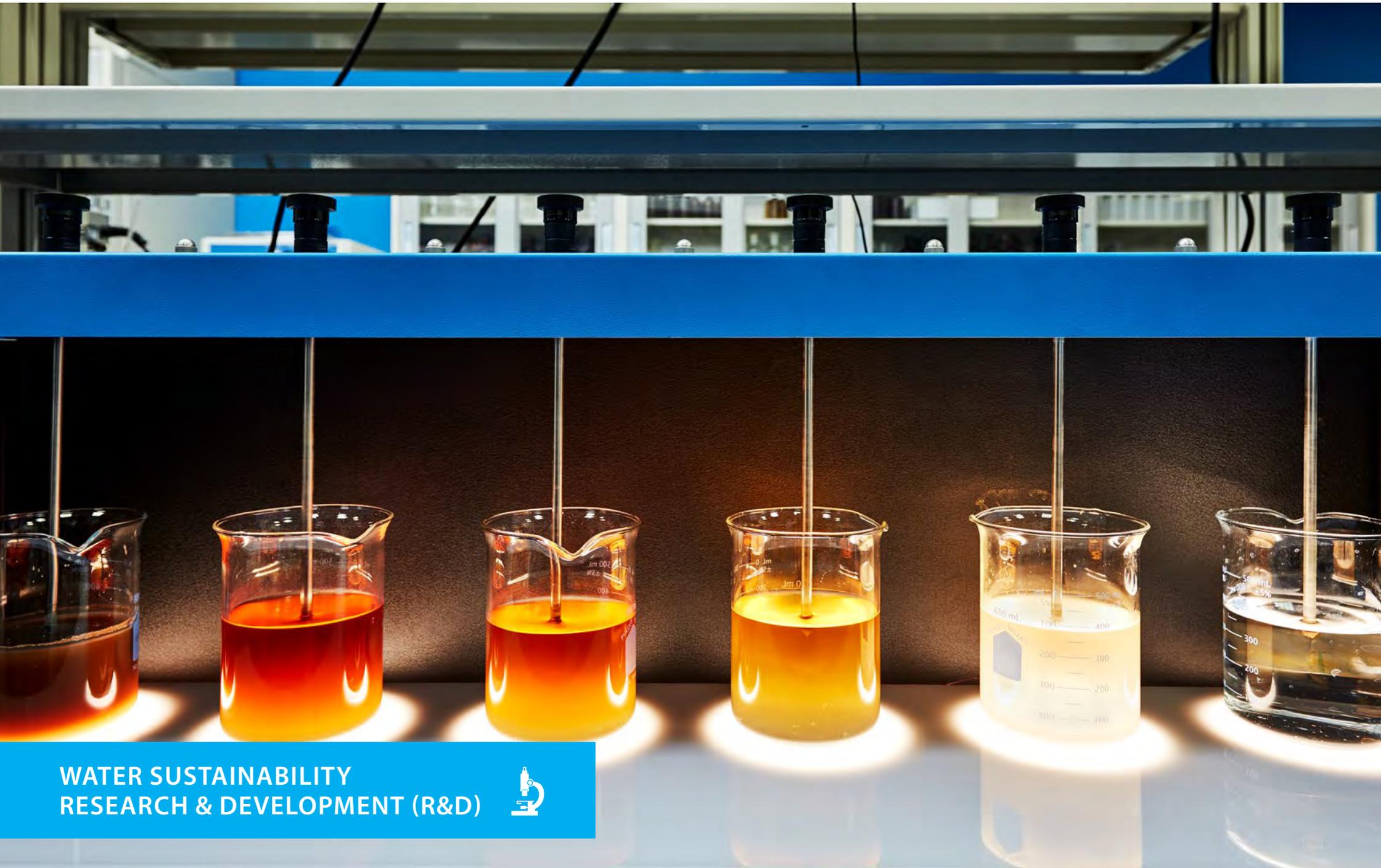
Eman Al-Shamari, a GWSC Assistant Scientist, was a member of the GASNA judging panel and took the stage during the competition's awards ceremony in 2015. She delivered a speech encouraging students to become the scientists of the future.



Aspiring science students at the GASNA awards



Eman Al-Shamari at the GASNA judging competition



**WATER SUSTAINABILITY
RESEARCH & DEVELOPMENT (R&D)**

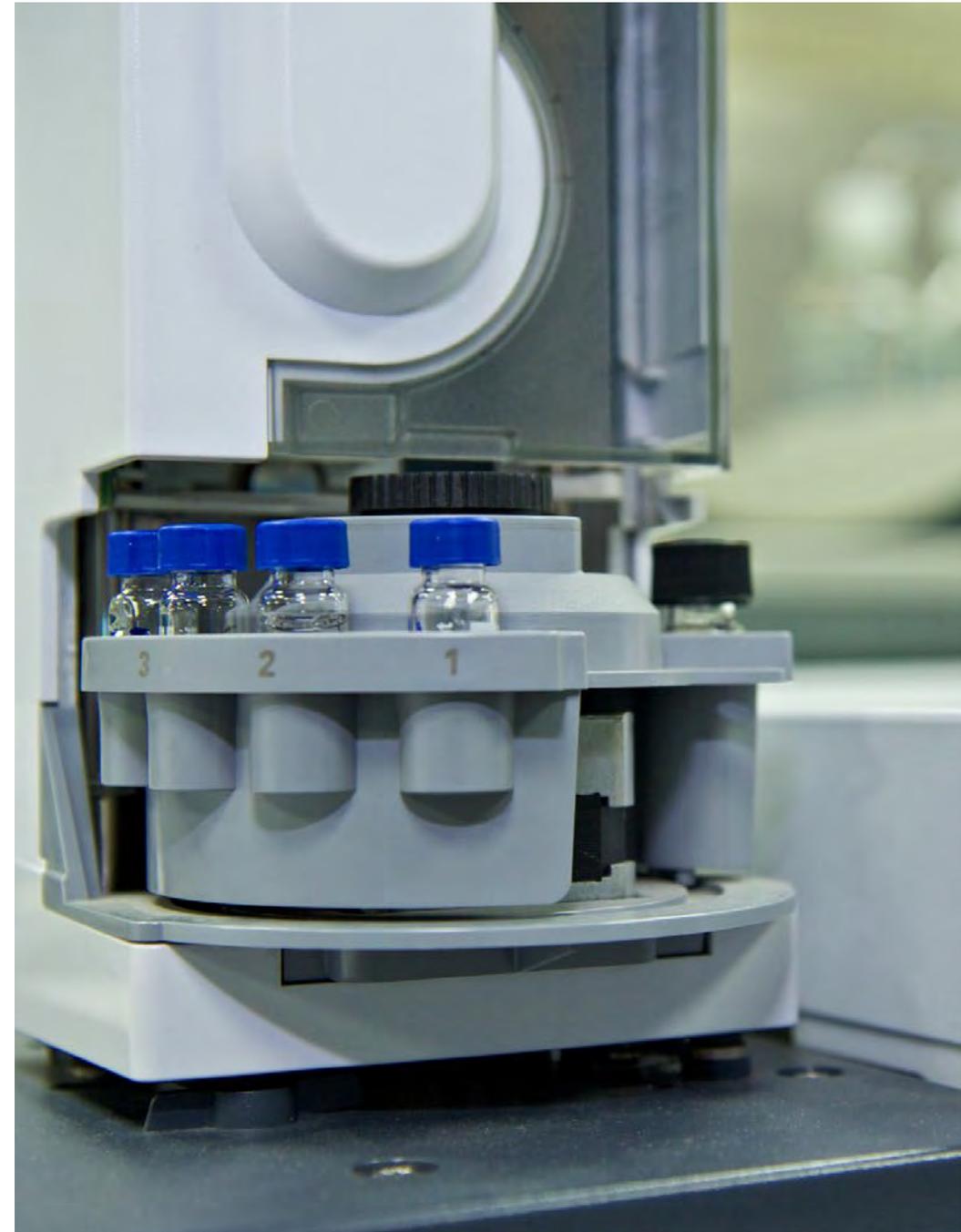




Qatargas Wastewater Reduction and Recycling Project

Qatargas continually strives to adopt industry best practices throughout its gas extraction and production operations. One initiative, the Wastewater Management Strategy, includes the construction of two advanced Wastewater Recycle and Reduction plants (WRRs) to treat process waters from three liquefied natural gas (LNG) trains. The ultimate objective is to reduce by 50 percent the amount of wastewater sent to disposal wells.

In support of this project, the GWSC analyzed various wastewater streams and mimicked the full-scale treatment process in lab tests. Qatargas selected the GWSC because its team has extensive design and practical experience in the key treatment technologies being applied in the new plants. Test results were presented to Qatargas staff together with recommendations to facilitate the smooth operation of the system.





Qatargas Flow Assurance / Leading Edge Analytical Support

During the extraction of oil and gas from reservoirs, field chemicals are added to reduce corrosion of the pipelines transporting the fuel to the processing facilities. Since chemical suppliers are continually improving chemical formulations to reduce cost and/or improve performance, periodic assessments of vendor offerings are conducted to enable Qatargas to identify the most cost-effective corrosion inhibitor for its operations.

As part of the bidding process to select new field chemicals, vendors submitted samples of their corrosion inhibitors to Qatargas and shareholder oil companies for testing and evaluation. During the evaluation process, laboratory analyses were required to precisely measure the concentrations of the field chemicals.

Because GWSC scientists have particular expertise in analytical method development, the GWSC provided leading-edge analytical support and developed the highly specialized analytical methods required to accurately measure the concentrations of the field chemicals.



Nabin Upadhyay, GWSC Scientist



Development of Innovative Technology for Hydrogen Sulfide (H₂S) Removal From Sour Water

Wastewater containing hydrogen sulfide (H₂S), also known as “sour water,” is a byproduct stream generated by oil and gas operators in Qatar and around the world. H₂S is also present in groundwater used for potable water production.

Because H₂S is highly toxic and corrosive, it is generally removed prior to water use or environmental discharge. In Qatar’s oil and gas plants, sour water strippers using either steam or fuel gas are typically used to remove H₂S.

In 2015, the GWSC conceived the concept of a “membrane stripper,” adapting the membrane contactors typically used in gas sweetening for sour water treatment. This process was successfully tested at laboratory scale with both synthetic solutions and sour water from Qatargas operations. Currently, a patent application for the process is being confirmed.



GWSC staff working in leading-edge analytical laboratories



Joel Minier Matar, GWSC Engineer, evaluates emerging water desalination methods at the GWSC labs located at the Qatar Science & Technology Park



A New Approach for Qatargas Produced / Process Water Volume Reduction

Reducing the amount of water sent to disposal wells is a key element of the Qatargas Water Management Strategy and a target of a 50 percent reduction has been set. For certain LNG trains, new WRRs are under construction, featuring leading-edge technologies for water treatment and recycling. For future trains, a novel low-energy “osmotic concentration” process has been developed by the GWSC engineers. This process has been proven effective in bench-scale tests to reduce produced/process water (PPW) volumes by 50 percent. In this process, the concentrated brine from a nearby thermal desalination plant draws water from the PPW through hollow fiber membranes, thereby reducing the volume of the PPW. A side environmental benefit of the process is that the salinity of the brine discharged by thermal desalination plants to the environment is reduced. Patent applications have been filed both in the United States and in the GCC.



Altaf Hussain, GWSC Engineer, investigates new approaches for produced water treatment



Various innovative water treatment technologies can be evaluated at GWSC treatability laboratories



Water Management for Unconventional, Coal Bed Methane and Oil Sand Resources

ConocoPhillips is a world leader in the extraction of gas, oil, and hydrocarbon liquids from unconventional reservoirs, coal seams and oil sands. Water is utilized in both unconventional reservoirs and oil sands as part of the extraction process, and must be produced from coal seams before substantial gas production will occur. The GWSC team developed expertise in various aspects of water management related to all three of these types of hydrocarbon reservoirs. Formal research reports have been prepared in the following areas:

- Reducing the amount of water lost by evaporation from hydraulic fracturing pits and tanks
- Detecting leaks in geomembrane liners used for storing hydraulic fracturing water in pits
- Providing aeration and mixing in a 500,000 BBL frac pit to prevent water souring
- Managing naturally occurring radioactive material (NORM) found in groundwater

In addition, process engineering and treatability tests were conducted to:

- Evaluate the effectiveness and capacity of ion exchange resins from different vendors
- Remove iron, hardness, boron, and hydrogen sulfide from high salinity groundwater to permit its reuse in fracing operations



Nabin Upadhyay, GWSC Scientist, develops novel testing methods for chemical analysis



GWSC staff working in leading-edge analytical laboratories



CONFERENCE & EXHIBITIONS





Sponsorship of the 4th Annual Brookings Doha Energy Forum

ConocoPhillips Qatar sponsored the Brookings Doha Energy Forum in Doha, Qatar. The year's event was organized by the Brookings Doha Center (BDC) and Brookings Energy Security Initiative (ESI).

The private, closed-door conference was fourth in an annual series examining the relationship between the Middle East, established energy markets such as Europe and the United States, and emerging Asian powers. The 2015 edition focused on three pillars: the changing geopolitics of energy, the implications of political and economic changes in the Middle East and Asia for energy production and consumption, and the shifts in global energy markets and their consequences for pricing.

The Forum convened prominent industry experts and policymakers from around the world for an in-depth discussion about the changing global energy landscape, including a range of high-ranking officials, experts, leaders of national oil companies, and representatives of the corporate sector.



Former ConocoPhillips Qatar president Gary Sykes with attendees of the Forum





QATAR PROCESS SAFETY SYMPOSIUM | PROCESS SAFETY IS NOT ACHIEVED BY ACCIDENT

Qatar Process Safety Symposium

Safety is more than ensuring we finish each day incident and injury free. It's at the core of our SPIRIT Values and how we operate around the world. It is out of our commitment to this wellbeing that we are steadfast champions of process safety. Process safety is not achieved by accident; rather it is reached through world class asset integrity management programs and by having a relentless focus on operating our assets to the highest possible standards.

Our commitment to adhering to and advancing the field of process safety has resulted in a partnership with Texas A&M University at Qatar (TAMUQ) since 2012. ConocoPhillips is a co-host of the annual Qatar Process Safety Symposium (QPSS).

The two-day event is designed to enrich attendees' understanding of topics such as best practices, safety success stories, incident case studies, new legislative initiatives, and recent advances in process safety research. QPSS also provides excellent networking opportunities, bringing together safety experts such as industry professionals, government officials, regulatory institutions, academia, NGO representatives, and students to exchange vital knowledge on industrial safety. The 2016 edition of QPSS has expanded to include an exhibition for the oil and industry to showcase products and services relevant to process safety.

The Symposium has been successful in providing a valuable forum where participants and industry peers share best practices, lessons learned, debate collective approaches, and above all engage in a learning experience focused on continuous improvement.

It influences development and innovation, encourages engagement, challenges conventional practices, and develops sustainable models surrounding this essential subject. It also supports students from the Mary Kay O'Connor Process Safety Center - Qatar (MKOPC-Q), who are performing research in process safety, allowing them the opportunity to share their work with the industry.

Working under ConocoPhillips' efforts to support education as well as health and safety, many students involved with QPSS have been performing master-level research in process safety to later find jobs in the process safety domain. Their participation at the annual QPSS event allows industry professionals to get to know them, and MKOPSC has started to become a pool for recruitment of young talent in the field of process safety and the future of our industry.



Speakers at the 7th annual Qatar Process Safety Symposium at the Hilton Doha Hotel



Mohamed Basser, Health, Environment, Safety and Security Manager, TOTAL E&P Qatar, receiving the QPSS Process Safety Excellence Award



Mr. Ahmad Helal Al-Mohannadi, Qatargas Chief Operating Officer, giving his speech at QPSS 2016



Mr. Ahmad Helal Al-Mohannadi addresses QPSS participants



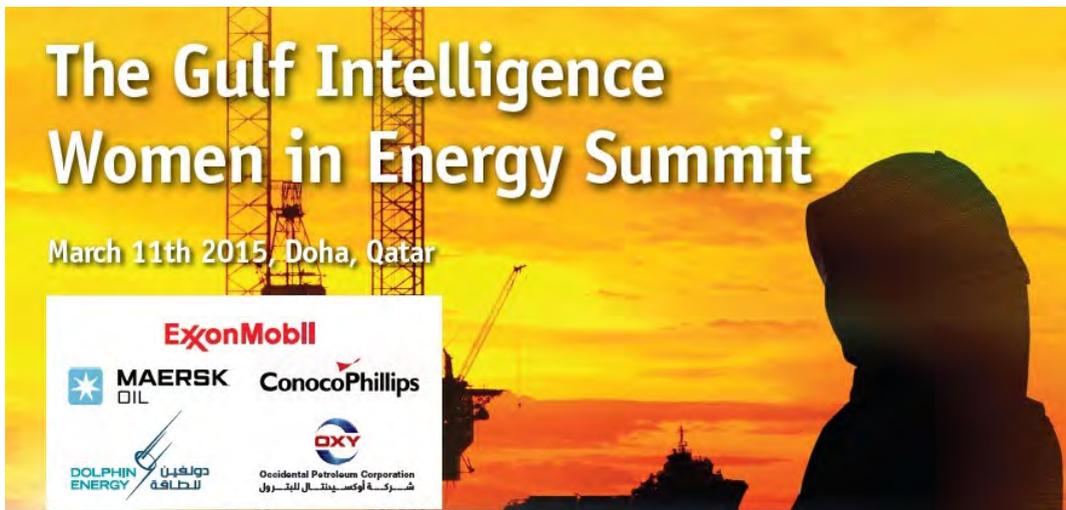
Left: Michael Hatfield, vice president, health, safety and environment for ConocoPhillips
Right: Dr. Luc Vechot, Associate Professor at Texas A&M University



Premier Partner of 5th Gulf Intelligence Doha Energy Forum and Women in Energy Summit

The Gulf Intelligence Doha Energy Forum is intended to facilitate a robust and intimate exchange of knowledge between the principal stakeholders responsible for the stewardship of the Qatar energy industry, and is held under the patronage of HE Abdullah Bin Hamad Al Attiyah, President of the Administrative Control & Transparency Authority and organized by Gulf Intelligence.

The Gulf Intelligence Women in Energy Summit looks to discuss and debate the outlook of the increasing trend towards women in the Gulf pursuing careers in the energy industry and putting forward recommendations on how to accelerate this trend. A number of ConocoPhillips employees participated in the Summit on such panels as international leadership, change in global LNG supply and demand dynamics, and a panel dedicated to opportunities for women in the oil and gas industry.



Matt Fox, Executive Vice President, Strategy, Exploration and Technology at ConocoPhillips, at the The Gulf Intelligence Doha Energy Forum



From left to right: Birger Balteskard and Matt Fox



Birger Balteskard, manager of global LNG marketing, ConocoPhillips, during the panel discussion



Sarah Mroueh, communication and public affairs manager at ConocoPhillips Qatar, during the panel discussion



International Petroleum & Technology Conference (IPTC)

ConocoPhillips was a proud Principal Sponsor of the Ninth International Petroleum & Technology Conference (IPTC) hosted by Qatar Petroleum, under the Patronage of His Highness Sheikh Tamim bin Hamad Al Thani, the Emir of the State of Qatar.

The conference focused on disseminating information about innovative technologies, best practices and multi-disciplinary activities designed to maximize asset value, and featured awards in various categories for notable accomplishments in the oil and gas industry.

ConocoPhillips Chairman and CEO Ryan Lance, Bill Bullock, President, Asia Pacific & Middle East, and ConocoPhillips regional directors supported this important industry event on its tenth anniversary in Qatar.

ConocoPhillips showcased its global portfolio and in-country achievements as well, prominently reflecting our commitment to communities in which our employees work and live.

The GWSC also presented a series of papers and presentations showcasing ConocoPhillips' water related technical expertise and capabilities on the Center's mission to develop innovative solutions for treating by-product water from the oil and gas industries in addition to conducting state-of-the-art research on water characterization, desalination, and recycling.



From left to right: Ryan Lance, CEO and chairman of ConocoPhillips, Dr. Khalid Noor Saifelddeen, Director of HITC and Chairman of Kulluna, Mr. Saad Sherida Al-Kaabi, CEO of Qatar Petroleum, Dr. Mohammed bin Saleh Al Sada, Minister of Energy and Industry, Mr. Hamad Rashid Al Mohammadi, Former CEO of Rasgas.



Ryan Lance, CEO and Chairman of ConocoPhillips, during the CEO plenary session.



Ryan Lance and Eman Al-Shamari at the ConocoPhillips booth during IPTC 2015



Group photo of IPTC 2015 sponsors representatives



From left to right: Bullock Bill, President, Asia Pacific & Middle East, ConocoPhillips, Dr. Mahmoud Younis, Dr. Khalid Abdulnoor Saifeldien and Ryan Lance



From left to right: Dr. Samer Adham, manager, global water sustainability center, Dr. Hector Klie, former computational and data scientist in advanced analytics at ConocoPhillips, Wesley Qualls, process engineering fellow at ConocoPhillips, Bruce Sager, finance manager at ConocoPhillips Qatar



Conference Participation | 2015 - 2016

Our involvement in local and regional conferences speaks to our dedication and efforts to provide knowledge sharing and expertise to our partners, stakeholders, and other members of our industry. Additionally, GWSC's engineers and scientists share their findings with other researchers to learn about other developments in the areas of water treatment and analysis. In 2015 and 2016, ConocoPhillips presented papers at the following conferences:

ORGANIZATION	EVENT NAME	DATE
NWRI	International Conference on Emerging Water Desalination Technologies in Municipal and Industrial Applications	August 2015
Society of Petroleum Engineers / Qatar Petroleum	International Petroleum Technology Conference	December 2015
Elsevier/Qatar Environment Energy Research Institute	International Conference on Desalination and Environment	January 2016
Qatar Foundation	Annual Research Conference	March 2016
Qatar University	Gulf Intelligence Water Security Forum	April 2016
Qatar University	Gas Processing Center International Symposium	November 2016





International Conference on Desalination and Environment

In January 2016, under the Patronage of His Excellency Dr. Mohammad bin Saleh Al Sada, Minister of Energy and Industry, the Qatar Environment and Energy Research Institute (QEERI) of Hamad Bin Khalifa University (HBKU) and Elsevier jointly hosted the 2nd International Conference on Desalination and Environment. ConocoPhillips' GWSC served as the platinum sponsor for the event which provided an opportunity to foster scientific collaboration amongst national, regional, and international institutes actively engaging in desalination and water treatment research. The GWSC's Dr. Samer Adham presented the keynote paper on produced water management. Two other papers were also presented by the GWSC staff during the Conference on water treatment by membrane distillation and forward osmosis.



Dr. Samer Adham presenting the keynote paper on produced water management



Dr. Samer Adham, manager, water solutions, ConocoPhillips commented:



We are pleased to be the exclusive Platinum Sponsor for ICODE as it provides a forum for academics and members of the desalination industry to meet with scientists from around the world and discuss advances in the fields of desalination and water treatment. GWSC is committed to develop innovative water solutions on the global scale as well as promote water conservation in Qatar, and support of important industry events such as this, which is a vital part of our on-going efforts. We will continue to look for opportunities that help contribute to achieving Qatar National Vision 2030.





Attendees of the conference



Dr. Samer Adham addressing the conference



Global Water Sustainability center team



Dr. Nidal Hilal, QEERI, and Dr. Samer Adham



International Conference on Emerging Water Desalination Technologies in Municipal and Industrial Applications

The scientists from ConocoPhillips' GWSC also participated in the International Conference on Emerging Water Desalination Technologies in Municipal and Industrial Applications in Aug 28-29, 2015. The conference, organized by the National Water Research Institute (NWRI), the National Centre of Excellence in Desalination Australia (NCEDA), and the Water Desalination and Reuse Centre of King Abdullah University of Science and Technology (KAUST), focused on several emerging low-energy water technologies and addressed developments required for commercial applications.

At the conference, Dr. Samer Adham of ConocoPhillips' GWSC delivered a keynote presentation to several prominent international water experts. The constituents also shared their in-depth knowledge on forward osmosis, membrane distillation and capacitive deionization. The conference also included presentations on pressure retarded osmosis and reverse electrodialysis, two emerging technologies for generating green energy from concentrated brines discharged by desalination plants.



Dr. Samer Adham delivers his keynote speech



Gulf Intelligence Water Security Forum

In April 2016, Gulf Intelligence, in collaboration with Qatar University, hosted a Water Security Forum to better align the key stakeholders of industry, academia, and government around one of Qatar’s major R&D challenges: water security. Over 100 stakeholders provided recommendations to address important issues regarding Qatar’s future on four key topics: produced water from oil and gas operations, industrial water consumption, desalination, and adopting new technologies in industry.

ConocoPhillips’ GWSC staff actively participated in a series of panel discussions and provided their recommendations on produced water management and advanced water treatment technology. The final recommendations put forth during the forum were compiled to create a holistic research and development roadmap for Qatar’s long-term water security.



Dr. Samer Adham with others attendees of the Gulf Intelligence Water Security Forum





Gas Processing Center International Symposium

The 2016 Gas Processing Center (GPC) International Symposium provided more than 300 experts from government, industry, academia, and the private sector to discuss challenges faced by the gas processing sector.

The symposium featured invited keynote speakers, technical workshops, oral presentations, and poster sessions. It was inaugurated with a speech by H.E. Dr. Mohammed Bin Saleh Al-Sada, Qatar's Minister of Energy & Industry.

GWSC's Dr. Samer Adham presented a keynote paper on produced water management, and Joel Minier-Matar, Research Engineer at GWSC, presented a paper describing a novel method for removing hydrogen sulfide from sour water.



Dr. Mohamed bin Saleh Al-Sada, Minister of Energy & Industry



Dr. Hassan Rashid Al-Derham, Qatar University President



Dr. Mohamed bin Saleh Al-Sada, Minister of Energy and Industry and senior officials at the opening of Gas Processing Center International Symposium



Sheikh Khalid bin Abdulla Al-Thani, Chief Operating Officer, Engineering and Venture, Qatargas, receiving an award from Dr. Al-Sada, Minister of Energy and Industry in the presence of Dr. Hassan Rashid Al-Derham, Qatar University President



KNOWLEDGE SHARING





ConocoPhillips and Qatargas Sign Incident Assistance Agreement

ConocoPhillips and Qatargas (QG) share the same ethos when it comes to operational safety- it is our number one priority. To this end, ConocoPhillips was proud to be the first company to sign an Incident Assistance Agreement with QG to facilitate emergency response. As part of the agreement, ConocoPhillips provides support to respond to emergency incidents.

Enhancing emergency preparedness, the agreement looks to enable reliable support and collaboration in emergency response. Within that process, we share our emergency response best practices with Qatargas' highly trained emergency response organization to support and reinforce an effective response in the unlikely event of an incident. The first exercise testing under this agreement took place November 2-5, 2015, with QG invited to observe and participate in a ConocoPhillips Global Incident Management Assist Team (GIMAT) Tier 3 exercise in Kuala Lumpur, Malaysia. The event was a success, pointing to Qatargas' commendable safety culture and emergency preparedness.



Gary Sykes with Randy Stadler, Chief Safety, Environment & Quality Officer, Qatargas, receiving a token of appreciation



Gary Sykes and Rula Manasra with Qatargas delegates

Journal Publications | 2015 - 2016

The dissemination of the results of GWSC’s research is an integral aspect of ConocoPhillips’ CSR program. This knowledge-sharing benefits the country as well by promoting Qatar as a leader in the energy industry, capable of developing new advances in technology, improving the operations of Qatar’s oil and gas companies, and developing human capital within the fields of applied science and engineering.

In addition to participation at conferences and events, the GWSC shares its research results with the wider scientific community through journal publications, patent publications, and hosting a variety of workshops and seminars.

Some of these papers published in referenced journals in 2015 and 2016 are listed on the next page.

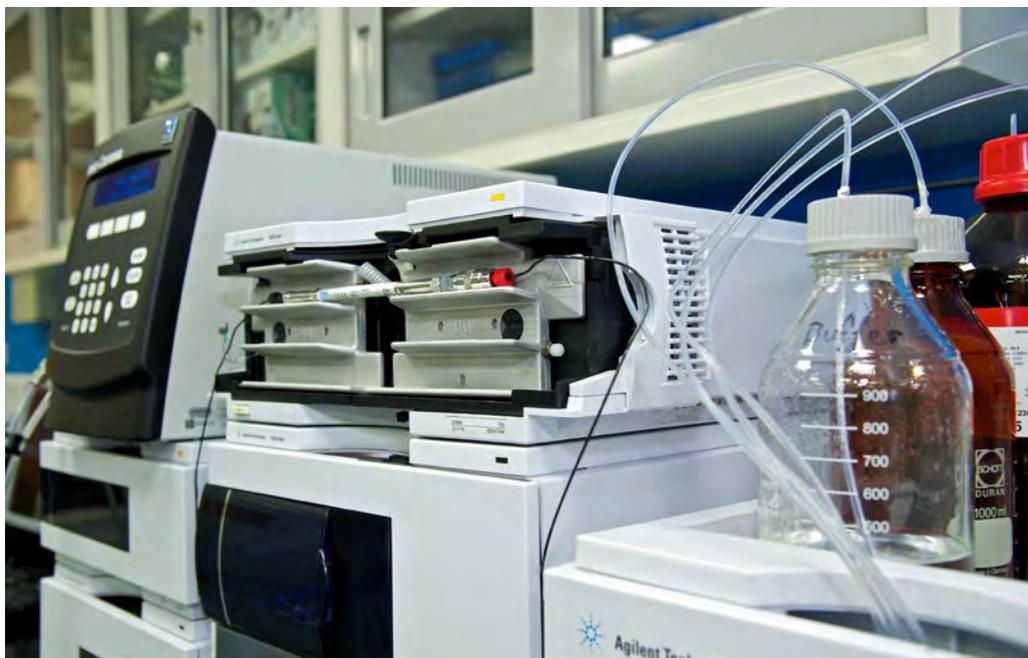
JOURNAL NAME	TITLE
Journal of Petroleum Science and Engineering	Evaluation of analytical methods for determination of kinetic hydrate inhibitor (KHI) in produced waters
Society of Petroleum Engineering Journal	Biotreatment of hydrate inhibitor-containing produced water at low pH
Desalination	Application of forward osmosis for reducing volume of produced/process water from oil & gas operations
Desalination	Field evaluation of membrane distillation followed by humidification/dehumidification crystallizer for inland desalination of saline groundwater
Environmental Science & Technology	Application of hollow fiber forward osmosis membranes for produced and process water volume reduction: an osmotic concentration process
Desalination	Gas field produced/process water treatment using forward osmosis hollow fiber membrane: Membrane fouling and chemical cleaning

Patents 2015 - 2016

The development of intellectual property in Qatar is integral to promoting a knowledge-based economy and fulfilling Qatar’s National Vision 2030. In 2015 and 2016, three patent applications were submitted to the United States Patent Office and the Gulf Cooperation Council Patent Office. All three inventions targeted produced water treatment and all had direct application to Qatar’s petroleum industry. Two applications were formally published in 2016. Research efforts are continuing to evaluate innovative technologies in pilot-scale tests.

(19) United States		
(12) Patent Application Publication	(10) Pub. No.: US 2016/0355414 A1	
JANSON et al.	(43) Pub. Date: Dec. 8, 2016	
<hr/>		
(54) METHOD OF REMOVING HYDROGEN-SULFIDE FROM WATER	B01D 71/52	(2006.01)
	B01D 61/58	(2006.01)
	B01D 61/36	(2006.01)
(71) Applicant: CONOCOPHILLIPS COMPANY, Houston, TX (US)	B01D 69/08	(2006.01)
	B01D 71/36	(2006.01)
(72) Inventors: Arnold JANSON, Doha (QA); Samir GHARFEH, Katy, TX (US); Samer ADHAM, Doha (QA); Zaid CHOWDHURY, Chandler, AZ (US); Joel MINIER-MATAR, Doha (QA)	(52) U.S. CL.	
	CPC	C02F 1/44 (2013.01); B01D 69/08 (2013.01); B01D 69/06 (2013.01); B01D 69/02 (2013.01); B01D 61/243 (2013.01); B01D 71/36 (2013.01); B01D 71/34 (2013.01); B01D 71/26 (2013.01); B01D 71/52 (2013.01); B01D 61/58 (2013.01); B01D 61/362 (2013.01); C02F 1/448 (2013.01); C02F 1/5236 (2013.01); B01D 2325/38 (2013.01); C02F 2101/101 (2013.01)
(21) Appl. No.: 15/171,429		
(22) Filed: Jun. 2, 2016		

(19) United States		
(12) Patent Application Publication	(10) Pub. No.: US 2016/0376171 A1	
MINIER-MATAR et al.	(43) Pub. Date: Dec. 29, 2016	
<hr/>		
(54) SEPARATION OF KINETIC HYDRATE INHIBITORS FROM AN AQUEOUS SOLUTION	Publication Classification	
(71) Applicant: CONOCOPHILLIPS COMPANY, Houston, TX (US)	(51) Int. Cl.	
	C02F 1/38	(2006.01)
	C02F 1/02	(2006.01)
	E21B 21/06	(2006.01)
	C02F 1/28	(2006.01)
(72) Inventors: Joel MINIER-MATAR, Doha (QA); Samir GHARFEH, Doha (QA); Altaf HUSSAIN, Doha (QA); Samer ADHAM, Doha (QA)	(52) U.S. CL.	
	CPC	C02F 1/385 (2013.01); C02F 1/283 (2013.01); C02F 1/02 (2013.01); E21B 21/065 (2013.01); C02F 2103/10 (2013.01)
(21) Appl. No.: 15/190,404	(57) ABSTRACT	
(22) Filed: Jun. 23, 2016	The invention relates to a process for treating an aqueous solution from a subterranean formation of an oil and gas operation. The aqueous solution can be removed from the subterranean formation and treated in a heated centrifugal separator. The heated centrifugal separator can separate the kinetic hydrate inhibitor from the aqueous solution, and then the aqueous solution can be reintroduced into the subterranean formation.	
Related U.S. Application Data		
(60) Provisional application No. 62/183,575, filed on Jun. 23, 2015.		



Technical Workshops / Seminars

ORGANIZATION	TITLE	PRESENTER NAME	MONTH
Qatar Petroleum / Qatargas	Overview on corrosion and its preventive measure in oil / gas industry	David Blumer Mohsen Achour (Bartlesville Technology Centre, Oklahoma, USA)	Dec, 2015
Qatar University/ Gas Processing Centre	Application of osmotic concentration for volume reduction of produced / process water from gas-field operations	Samer Adham, GWSC, Doha	May, 2016
Society of Petroleum Engineers Qatar Chapter	Advances in application of forward osmosis technology for volume reduction of produced/ process water from gas-field operations	Joel Minier Matar, GWSC, Doha	June, 2016
Qatar Foundation QNRF (Research Outcomes Seminar)	Application of forward osmosis for volume reduction of produced and process water from Qatari gas fields	Samer Adham, GWSC, Doha	October, 2016



Workshop attendees



Workshop attendees



Dr. Samer Adham and Joel Minier-Matar presenting during the workshop



AWARDS & RECOGNITION 



The Young Professional contest

ConocoPhillips is dedicated to identifying and acknowledging young talent in our field, and celebrating future leaders of our industry. Joel Minier-Matar, Research Engineer at GWSC, was awarded first place in the Young Professional contest in 2015, in conjunction with IPTC.

This prestigious accolade was bestowed upon Minier-Matar for his technical presentation on "Advances in Application of Forward Osmosis Technology for Volume Reduction of Produced/Process Water from Gas-Field Operations." The award was presented by Mr. Khalid Al-Hitmi, Manager, Gas Development at Qatar Petroleum, during the IPTC Closing Ceremony held at the Qatar National Convention Centre (QNCC).

The IPTC Young Professional contest is for industry members with less than 10 years' of experience, or aged 36 and below. Minier-Matar was one of seven participants from leading companies across Qatar to enter this competition.



Joel Minier-Matar, the Young Professional contest winner 2015, at the GWSC laboratory



ARC'16

مؤتمر مؤسسة قطر
السنوي للبحوث
QATAR FOUNDATION
ANNUAL RESEARCH
CONFERENCE

Annual Research Conference

Qatar Foundation's Annual Research Conference (ARC) builds on nationwide efforts to advance Qatar's ambitious research agenda. The 2016 conference provided a unique platform to promote the multidisciplinary knowledge-sharing and collaboration needed to tackle the most pressing national challenges in water research. ARC'16 provided thought-provoking panel discussions and technical presentations where leading experts shared their expertise in novel approaches addressing water security and renewable energy solutions.

ConocoPhillips' GWSC presented their novel osmotic concentration process for volume reduction, and was recognized with an award under the "Energy and Environment" research category.



Dr. Nabeel Al-Salem of Qatar Foundation R&D presenting an ARC'16 award to Dr. Samer Adham



Award winners at ARC'16



ConocoPhillips congratulates Aida Rafat as the first ever FameLab Winner from Qatar

Speaking to ConocoPhillips's values of supporting education and innovation, we celebrated the Qatar business unit's own Aida Rafat, GWSC assistant engineer, as the first ever FameLab winner from the State of Qatar. Aida took part in the 2016 edition of FameLab, the renowned global science communications competition. Her skillfulness in explaining the complicated topic of "Graphene and Thermal Desalination" won her the accolade of joint runner-up, placing above over 2,000 other competitors from 27 countries. The final stage of the worldwide competition took place at the EDF Area at The Times Cheltenham Science Festival in June 2016.

FameLab aims to find, develop and mentor young science and engineering communicators. The contest entertains and educates audiences during a fast-paced series of three-minute presentations on science, technology, and engineering concepts. Aida applied for the FameLab National competitions in Qatar, and gave her first three-minute talk on graphene in Qatar in March 2016. She and 11 other shortlisted competitors were then selected to advance to the finals of the national competition. After representing Qatar at FameLab's international competition in the UK, Aida is now pursuing a PhD in Chemical Engineering at Imperial College London.



FameLab international finalists: Abhi Veerakumarasivam, Malaysia; Constantinos Timinis, Cyprus; Alba Aguinon, Spain, and Aida Rafat, Qatar



Aida Rafat, GWSC assistant engineer, with her award



Qatar Foundation | Qatar Green Building Council Sustainability Week

Qatar Sustainability Week, an initiative launched by the Qatar Green Building Council (QGBC) in 2015, aims to promote the nation’s sustainability vision through community engagement with stakeholders. This event showcases the efforts made by Qatar’s public and private sectors to provide support and expert advice needed to achieve the nation’s sustainable development goals. In 2016, Qatar Sustainability Week coincided with COP22 happening in Marrakesh, Morocco.

ConocoPhillips supported this event in both 2015 and 2016 as part of its ongoing environmental CSR efforts. In 2015, at the opening ceremony, Eman Al-Shamari described the GWSC’s projects, both research and public education related. In 2016, the GWSC provided guided tours of the Visitor Center to the public to promote the importance of water and water conservation.



Arnie Janson, principal engineer, GWSC receiving his award from Eng. Meshal Al-Shammari, Director, Qatar Green Building Council



GWSC visitors exploring the different section of the center



Eman Al-Shammari, assistant scientist, GWSC receiving her award from Eng. Meshal Al-Shammari, Director, Qatar Green Building Council



EMPLOYEES SOCIAL ACTIVITIES 

Qatar National Sports Day

The ConocoPhillips family joined Qatar’s community in 2015 and 2016 to celebrate Qatar National Sports Day (QNSD) and acknowledge the importance of a healthy lifestyle. Employees went to Katara Cultural Village to participate in many fun activities run by Kulluna to commemorate the day. After a healthy breakfast, the team experienced a full day of exciting games, such as tug-of-war, relay races, and hula hoop challenges.



ConocoPhillips Qatar participating in Kulluna's fun activities



ConocoPhillips Qatar employees at Kulluna's sports day activities



National Day celebration

On December 17, 2016, ConocoPhillips Qatar employees celebrated Qatar National Day (QND). Held one day before the official public holiday, our celebration included a traditional majlis set-up, including a display of 'sadu,' a Qatari traditional textile, and talks on Qatari culture presented by our Qatari colleagues. There was also a specially catered traditional breakfast, bringing the spirit of QND to life for our Qatar employees from across the globe.



ConocoPhillips employees celebrating Qatar National Day in traditional Qatari clothing.



Scenes from the celebration of Qatar National Day



Looking Forward: Playing to our strengths to make a real difference

At ConocoPhillips we believe that it's not what we do that's important, but how we do it. That's why we are constantly looking for ways to streamline and focus our initiatives. Looking forward, we will continue to play to our strengths in the areas of water sustainability and health and safety. We intend to work with the resources we have available to provide relevant and impactful initiatives specifically for Qatar.

Our achievements so far are notable, especially evident in our work with the country's youth. ConocoPhillips believes in the power of the next generation and will continue to seek ways to reach out to them, educating and enlightening them for a brighter future.



From left to right: Sulafa Khaier, Hamda Al-Kuwari, Eman AlShamari



At **ConocoPhillips** we believe that it's not just what we do that's important, but how we do it. We never forget our responsibility to be a good neighbor and a great place to work.



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