# Andrews Kurth Middle East

## Newsletter

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Welcome to the March edition of the Andrews Kurth Middle East Newsletter.

I am pleased to let you know about the launch of our “Intelligent Energy Law” initiative. This brings together a dedicated Andrews Kurth team with deep experience in supporting advanced energy technology clients, and with a specific initial focus on the internationalization of Gulf of Mexico and North Sea origin technology to the Middle East.

Recent conferences and exhibitions in the region including the World Future Energy Summit in Abu Dhabi, the International Petroleum Technology Conference in Qatar and the Geo2014 in Bahrain have underlined the increasing need and dependence of the region on importing and developing advanced technology to meet the challenges of the likes of sour gas, maturing oil reservoirs and unconventional gas. This newsletter contains four articles exploring these themes, based on presentations made at Subsea Expo in Aberdeen last month by Andrews Kurth partners Jeff Dodd, Greg Porter and myself, and James Brown of Murgitroyd European Patent Attorneys.

These challenges, and the technical solutions, will be given further analysis and commentary at the forthcoming Sour Gas (SOGAT) Conference in Abu Dhabi, SPE Enhanced Oil Recovery Conference in Muscat and SPE Intelligent Energy Conference in Utrecht, and our Intelligent Energy Law team will be closely monitoring the commercial opportunities and legal risk arising from these themes. Please do let me know if you will be attending any of these events.

I will be attending OTC in Houston in May and would be delighted to meet with you if your travel plans take you to Houston for this conference. Please contact me at hughfraser@andrewskurth.com. I hope to see you then.

Meantime, I hope that Q1 of 2014 has provided a solid start to the year for you and your team.

Best regards,

Hugh Fraser, Office Managing Partner, Dubai

## IP Trends in the Energy Sector

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With continuing globalization of the energy economy, numerous trends are emerging with respect to intellectual property, including a steady increase in the number of U.S. patents filed in the traditional oil and gas sector since 2000, from just under 600 that year to more than 1,200 in 2012.

One important strategy change stems from the fast track filing system now available in the U.S.

“A typical filing strategy in the industry used to involve filing first in the home country with Patent Cooperation Treaty (PCT) and non-PCT filings one year later. Multiple inventions might be included in one filing with the most commercially valuable pursued first and then follow-up applications. The typical time for a patent to be granted via this route in the U.S. may be 38 months or more,” explained Greg Porter.

“An alternative strategy now involves filing a Track One application in the U.S. which can achieve one or more patents issued within six months to a year. Although more expensive, the early patent increases the potential for early stage investors and private equity."

“If a Track One application does not achieve a patent then trade secret protection can be evaluated as an alternative before the application publishes, again creating opportunity for earlier stage investors and private equity.”

Successful trade secret protection will depend upon whether the information has independent economic value and is not generally known to the public or others who can obtain economic value from its disclosure or use.

Trade secret theft can be combatted via the Tariff Act of 1930 (Section 337) which allows the International Trade Commission to exclude imports when it finds unfair methods of competition and unfair acts in the importation. Recent cases have held that products manufactured overseas with the assistance of misappropriated trade secrets can be refused entry into the U.S. even if the theft occurred entirely on foreign soil.

The more competitive market will inevitably translate into more IP lawsuits and related disputes. Factors influencing this include more competition in the market, the threat posed by non-practicing entities and the threat from former employees and other competing start-ups.

Although the number of patent suits in the U.S. energy sector remains low thus far, the trend is upwards with six U.S. energy patent cases between 1995 – 2000, 11 in 2001 – 2006 and 12 between 2007 – 2012. However, when one looks at the total number of patent cases brought by non-practicing entities across all industry sectors in the past five years in the U.S. one gets a sense of the potential for litigation to spiral upwards. There were around 600 NPE patent cases in 2008, rising to over 1,500 in 2011 and more than 3,000 in 2012.

“The energy industries currently rank 14th out of the 20 major technology industries in terms of patent litigation but we can reasonably expect this to change in an increasingly competitive market where IP is traded as a commodity separate from the traditional products and services,” said Greg Porter.

“Part of protecting against such litigation will involve strong employee and confidentiality agreements, maintaining a robust patent portfolio and carrying out cost-effective freedom to operate searches and clearances.”

**Intellectual property protection in the Middle East**

The Middle East provides unique intellectual property protection for technology, brands, engineering designs and software, although the position is not uniform across the region.

There are two main routes for the protection of tools, processes and inventions via patent in the region. The first involves filing a single GCC application, usually within 12 months, and the second is to pursue the national filing route after 30 months via the international PCT.

A single Gulf Cooperation Council (covering Qatar, Saudi Arabia, Bahrain, Kuwait, Oman and UAE) application filed in parallel to an international PCT application is the most cost-effective but pursuing a national filing route at each of the national patent offices following the international PCT route offers a second chance but is more expensive.

There has been a steady rise in annual patent filing numbers in the GCC countries since the late 1990s, from 57 in 1998 to 2,198 in 2013 – illustrating the fact that companies increasingly see the value of protecting IP in the Middle East. Of the 23,000 applications filed between 1998 and 2013, only 5% were filed by residents but that balance may well be starting to shift.

Saudi Aramco's track record provides a case in point. It has been steadily increasing its number of patent filings over the past decade, from 49 in 2004 to a record 373 worldwide patent filings in 2013, suggesting a marked increase in research and design spend and consequent focus on IP value and protection.

Wider IP protections can also be achieved throughout the region, especially in relation to brands. Industrial designs can mostly be protected in the region but the weakest safeguards exist in relation to software and copyright law in Qatar, Iraq and Iran.

"The region's technology needs are evolving fast and the question companies in the market, or those wishing to enter it, need to ask themselves is whether their IP strategy is fit for purpose. Others are ramping up Middle East IP protection – should you?" said James Brown of Murgitroyd European Patent Attorneys.

## Andrews Kurth Launches Specialist “Intelligent Energy Law” Initiative at Subsea Expo 2014

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Andrews Kurth partners Jeff Dodd, Greg Porter and Hugh Fraser joined forces with James Brown of Murgitroyd European Patent Attorneys at the recent Subsea Expo conference and exhibition in Aberdeen, United Kingdom, to present a specialist seminar on the theme of “Intelligent Energy Law in the Middle East”.

The seminar focused on the increasing demand for advanced technology and know-how in the Middle East energy sector and the legal and commercial issues arising from protecting and exploiting intellectual property assets in the region, including advanced well intervention equipment, engineering drawings and specialist software, and retaining specialist personnel.

Over 5,300 delegates attended the three-day Subsea Expo event in February, during which global opportunities and subsea oil and gas technology developments were showcased. The event is the annual and principal event of Subsea UK, which champions the UK subsea industry – a sector which now has more than 53,000 employees, GBP£8.9 billion in annual product and services sales, and over 750 companies with some of the world’s leading experience and technology.

Hugh Fraser explained: “We are focusing in on how we can better support clients in the key legal areas of intellectual property in international energy regions such as the Middle East: creating and establishing ownership of IP; financing IP development; protecting against third-party infringement and commercialization through licensing or sale of IP. The Aberdeen event with Murgitroyd was an excellent opportunity to discuss the Middle East aspects of energy-related IP, drawing upon our collective experience of technology and know-how emanating from the North Sea, the Gulf of Mexico and from within the region itself.”

Hugh provided an overview of the key themes and opportunities which were driving the Middle East towards advanced technology and know-how, such as enhanced oil recovery, sour gas, heavy oil and unconventional gas, and specialist presentations were also made during the seminar by Jeff Dodd and Greg Porter of Andrews Kurth’s Houston office and James Brown of Murgitroyd’s Aberdeen office. The content of these is summarized in the articles entitled "Opportunities and Risks in the Middle Eastern Energy Industry" and "Acquiring and Transferring Energy Technology."

## Acquiring and Transferring Energy Technology

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The energy technology market is beginning to resemble other global technology markets in the way that technology and IP are invested, created, valued and traded.

There are two key themes setting the current agenda. Transactions involving energy and oilfield technology are undergoing the same changes as other technology transactions, evidenced by international, market-driven acquisition and trading with new participants active in the market. Secondly, there is increasingly a deconstruction of the traditional product and service components from the IP and technology components in the value chain.

Jeff Dodd said: “The oil and gas service sector has traditionally been heavily invested in technology and innovation that was distributed embodied in tangible products, principally equipment, or in connection with services. We are now seeing a deconstruction of product and service components from IP and technology components. At the same time, oil and gas is becoming like the other global technology markets with the technology and IP traded as commodities in their own right, disassociated from the products and services.”

This is reshaping how energy IP and technology is traded and the industry’s traditional IP value chain – comprising creation, securing, acquisition and monetization of IP – now has many complicating factors.

On the creation front, the mobility of innovative workers within the industry creates issues of who owns inventions – especially when invention assignments and non-disclosure agreements may be signed at different stages – and how information leakage is contained. Likewise, collaborations throw up issues around co-ownership. For example, the field-testing of a new technology could create new IP but does it belong to the inventor, the service company doing the field test, or the end customer whose asset was being worked on and permitted the trail to be carried out. Companies need to have clear contractual provisions, including assignment, license, sharing, enforcement and exit mechanisms, in place to address these factors.

The traditional assessment and obtaining of best protection and value for IP, via patent or trade secret routes, is a defensive strategy founded upon the principles of mutually assured destruction. With an appropriately designed, strong patent portfolio, anyone who tries to sue you for infringement is probably infringing your patents, so you both stand down.

Jeff Dodd said: “Nowadays, in acquiring or holding IP there needs to be far greater diligence and analysis on the creation and securing process to take account of the ebb and flow of IP strength. There also needs to be greater assertiveness in pressing IP claims. The availability of post grant reviews and new monetization avenues should lead to more stress testing assessment and evaluation, examination of offensive moves as less expensive routes to challenge invalidations and critical review of MAD as the default strategy – looking at the quality of weapon and target plus unexpected vulnerabilities.”

In acquiring IP the importance of evaluation in the round is growing, according to Dodd: “Look in your backyard, your neighbor’s backyard and your neighbor’s neighbor’s backyard. In evaluating the acquisition of IP you have to think of what competitors are doing, industry trends and the international dimension too in order to have a strategy that is informed by gap and vulnerability analysis, alongside understanding of your IP strengths.”

Active markets are creating greater visibility into technology and IP and the new monetization forces affect all, competitors included. This climate calls for tougher identification, evaluation, diligence and allocations in relation to IP.

However, it is the monetization section of the value chain where perhaps the greatest changes are occurring.

The industry is seeking greater control over distribution and income streams. Monetization of IP is considered earlier than ever before and market forces, which necessitate mining IP to identify and unlock value, drive this. The market drives more aggressive IP acquisition or blocking, challenge and assertion and IP is being evaluated more thoroughly for repurposing in other industry sectors.

New financing arrangements and investors, wholly focused on IP, are creating more visibility of IP value, or the lack of IP value. The new market dynamics and techniques for decoupling and trading in oil and gas IP may not yet be as publicized as in other technology markets but they are evident and growing.

New financing arrangements are also becoming more common, including royalty and revenue stream assignments and financings, securitizations and specialty loans on IP, while aggregators and non-practicing entities are supporting R&D with finance and grant backs in return for enforcement and license rights. Industry participants often now use project finance to fund R&D to gain access, where the IP can be assigned to a single purpose vehicle by an inventor or operator with the investor owning the equity and the originator getting cash, a development contract and claw back.

“The trade in energy IP and technology is, as with the rest of the industry, truly international. Evaluating strategy for one geographic market must take into account approaches in other markets. Cross-market collaborations and transactions can create both issues and opportunities in other markets. Companies also need to take a 360° of strategy and assessment across markets and recognize that new financial techniques and transactional structures around IP can facilitate the sharing and allocation of financial and other risk,” said Dodd.

## Opportunities and Risks in the Middle Eastern Energy Industry

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The growth in demand for advanced energy technology and experience in the Middle East has created a myriad of opportunities as well as inherent risks for the global industry.

While traditionally associated with low technology and low cost production, the volume, scale and complexity of the region's energy projects are driving demand for high technology solutions and know-how. The factors influencing this trend include: mature infrastructure and corrosion; accelerating requirements for enhanced oil recovery; gas supply, exploitation and transportation to market; sour gas; heavy oil; deep/tight gas; shale gas; LNG; GTL and clean fuels refineries; carbon capture and storage; and nuclear and solar technologies.

The scale of the Middle East's reserves and capital investment program is impressive. Just over half of the world's proven conventional oil reserves and 42% of the world's proven conventional gas reserves are situated in the Middle East and North Africa. The region has 13 of the world's 20 giant oilfields as well as the largest gas field in the world. There is an estimated US $3 trillion of projects underway or planned in the six Gulf Cooperation Council countries (Saudi Arabia, UAE, Kuwait, Oman, Bahrain and Qatar) plus Iraq and Iran. The majority of these relate to upstream oil and gas, downstream (including refineries, LNG and GTL), petrochemicals and related infrastructure projects.

Hugh Fraser explained: "The opportunity for operators and the supply chain is significant. The region has 78 years remaining of oil production to reserves compared with a global average of 53 years and for gas it is over 100 years compared with a global average of 56 years. Combine this with an estimated US $480 billion of project work now under study, in design or out to bid and you begin to see the attraction."

There is a profusion of projects valued above US $10 billion. They include the Jubail, Yanbu and Petrorabigh refineries and petrochemicals schemes in Saudi Arabia; the Rumaila, West Qurna and Majnoon field development in Iraq; Zadco Upper Zakum artificial islands field development, ADCO onshore field development programs, ADMA-OPCO offshore field developments and Shah/Bab sour gas field developments in Abu Dhabi; Khazzan deep/tight gas project in Oman; and the Barzan gas development in Qatar.

The indigenous petroleum industry is balancing the politics of resource nationalism with its need for the majors – who pulled back from the region in the 1970s – and their technology. A further technology drive is expected if Red Sea and East Mediterranean exploration and appraisal programs bring deepwater fields into play in a region hitherto dominated by onshore and shallow water production.

The region's current and emerging technology requirements are extensive and include enhanced oil recovery and artificial lift; LNG and GTL; seismic, geology, reservoir characterization and fluid modeling; unconventional drilling and completions – horizontal drilling and hydraulic fracturing; advanced completions and well intervention; automation, advanced control systems and digital systems; asset integrity management; and carbon capture and storage. The need for nuclear power and renewables, especially solar, waste to energy, desalination, and IT security and asset protection technologies is also increasing.

Hugh Fraser said: "Companies entering the market – drawn by the undeniable commercial opportunities – need to ensure that they have the appropriate commercial and legal strategies and protections in place as part of their overall risk and reward assessments. Protecting their IP being one key consideration."

The considerations for market entrants include territorial application of patent rights; who owns new IP that arises from work; specialist personnel contracts and restrictive covenants that reflect the increasingly mobile and consultant-heavy workforce; licensing and enhanced technology services agreements; and infringement monitoring, defense and indemnities. Appropriate weight must also be given to the governing law of contracts and statutory laws, dispute resolution planning and jurisdiction issues.

With an increasing amount of private equity investment in the service sector, often focusing specifically on realizing IP value at an early stage, businesses also need to plan ahead for corporate exit strategies and due diligence, including establishing IP asset registers and audits.

Hugh Fraser said: “Companies hoping to operate successfully in the region will have to have a legal strategy that is tailored to the specifics of the region if they are to realise their business development aspirations.”

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## Featured Team Member | Angela Ewen

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Angela is the Legal Services Manager with Andrews Kurth (Middle East) JLT. In this role, she works closely with the legal team and with clients. She oversees the Business and Licensing team within the region and is also experienced in employment matters. Originally from Scotland, Angela has been living in Dubai since 1999. She has a breadth of experience both in Scotland and in the Middle East in several sectors, including oil and gas, education and legal. Before moving to Dubai, Angela graduated with a B.A. in Law and Management from Robert Gordon University in Aberdeen, Scotland.

## Upcoming Events

We are pleased to announce that Andrews Kurth will be attending the following upcoming events. If you have plans to be at any of these conferences, we would be delighted to meet with you. If you would like to meet with us or have any questions, please contact HughFraser@andrewskurth.com.

- Sour Oil & Gas Advanced Technology 2014 (SOGAT)
  *Abu Dhabi, United Arab Emirates (March 23-27, 2014)*

- SPE Enhanced Oil Recovery / OGWA
  *Muscat, Oman (March 31-April 2, 2014)*

- SPE Intelligent Energy
  *Utrecht, The Netherlands (April 1-3, 2014)*

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